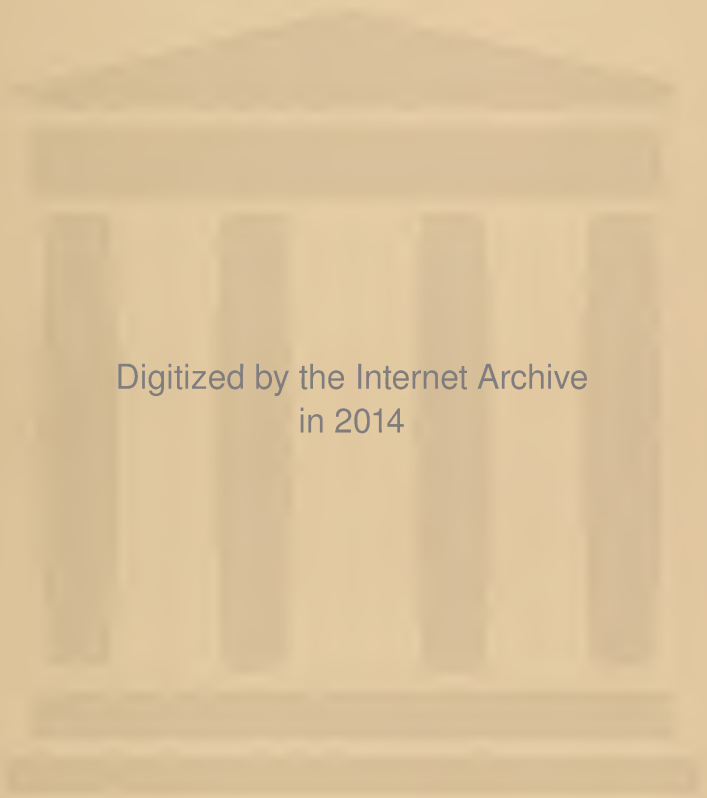
THIRTY-FIFTH ANNUAL REPORT

OF THE

New York Zoological Society



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Barbary Lioness.

1895 1930

CITY OF NEW YORK

New York Zoological Society

Founded in 1895 for the establishment of the Zoological Park; conservation of the animal life of the world--fishes, mammals, birds; promotion of zoology through exploration and publication; and, in 1900, the direction of the New York Aquarium in Battery Park

THIRTY-FIFTH ANNUAL REPORT

Address, *Director*, W. Reid Blair, Zoological Park, 185th Street and Southern Boulevard; *Director*, Charles H. Townsend, Aquarium Battery Park; *Secretary*, William White Niles, 101 Park Avenue.

Published at the Office of the Society,
101 PARK AVENUE, NEW YORK, N. Y.

JANUARY, 1931

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THE NEW YORK ZOOLOGICAL SOCIETY

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NEW YORK

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The Zoological Park

Sea Lion
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Addra Gazelle
American Wapiti
Malay Sambar Deer
African Elephant
American Pronghorn
Vicunia
Siberian Ibex
Indian Sambar Deer
Galago
Brannick's Rat
Brazilian Armadillo
Polar Bears
African Civet
Serval
Babirussa
Galapagos Hawk
Darwin Rhea
Galeated Currasow
Zigzag Bittern
European Pelican
White-breasted Nuthatch
Pied Peachick
Black Ducks
Short-eared Owl
Snowy Owl
White-necked Stork
Spiny Swift
Brazilian Tree-toad
Surinam Toad
Mangrove Snake
Mexican Pygmy Python
Green Tree-boa
Vine Snake
Gaboon Viper

The New York Aquarium

Seining Bahamas
Laboratory, Pirate's Nest
New York Aquarium
Marbled Grouper
Galapagos Snapper
Blue-striped Snapper
Salema
Grunt
Marine Gar
Galapagos Puffer
Pacific Black Trigger-fish
Variegated Wrasse

(*Illustrations continued*)

Department of Tropical Research

Bathysphere Submerging
Abyssal Dragonfish
Gerupylids
Nonsuch from the Air
Deep-sea Starfish
Brangman's Island
Hurricane; Gurnet Rocks
Abyssal Fishing-frog

New York Zoological Society

Membership

Membership.—Membership in the Zoological Society is open to all who are interested in the objects of the organization and desire to contribute toward its support.

Classes.—Annual Membership is $10. This entitles the holder to admission to the Zoological Park on pay days, when the collections may be seen to the best advantage, all publications of the Society, privileges of the Administration Building, lectures, special exhibitions, and ten complimentary tickets to the Zoological Park for distribution.

Annual Members may become Life Members by the payment of $200; a subscriber of $1,000 becomes a Patron; $2,500, an Associate Founder; $5,000, Founder; $10,000, a Founder in Perpetuity, and $25,000 a Benefactor.

Applications for Membership should be sent to William White Niles, Secretary, N. Y. Zoological Society, 101 Park Avenue, New York, N. Y.

Form of Bequest

I do hereby give and bequeath to the "New York Zoological Society," *of the City of New York,*.....

.....

.....

Address, Cornelius R. Agnew, *Treasurer*
82 Beaver Street, New York, N. Y.

New York Zoological Society

Organized 1895

Presidents

I.	Andrew H. Green	1895 to 1897
II.	Levi P. Morton	1897 to 1909
III.	Henry Fairfield Osborn	1909 to 1925
IV.	Madison Grant	1925

First Vice-Presidents

I.	J. Hampton Robb	1895 to 1897
II.	Henry Fairfield Osborn	1897 to 1909
III.	Samuel Thorne	1909 to 1916
IV.	Madison Grant	1916 to 1925
V.	Frank K. Sturgis	1925

Second Vice-Presidents

I.	Charles H. Whitehead	1895 to 1902
II.	John L. Cadwalader	1902 to 1915
III.	Madison Grant	1915 to 1916
IV.	Frank K. Sturgis	1916 to 1925
V.	Henry D. Whiton	1925 to 1930
VI.	Kermit Roosevelt	1930

Treasurers

I.	L. V. F. Randolph	1895 to 1901
II.	Charles T. Barney	1901 to 1903
III.	Percy Rivington Pyne	1903 to 1922
IV.	Cornelius R. Agnew	1922

Secretaries

I.	Madison Grant	1895 to 1925
II.	William White Niles	1925

Chairmen, Executive Committee

I.	Charles E. Whitehead	1895 to 1896
II.	Henry Fairfield Osborn	1896 to 1903
III.	Charles T. Barney	1903 to 1908
IV.	Henry Fairfield Osborn	1908 to 1909
V.	Madison Grant	1909

Directors

I.	William T. Hornaday, *Zoological Park*	1896 to 1926
II.	Charles H. Townsend, *New York Aquarium*	1902
III.	W. Reid Blair, *Zoological Park*	1926

Board of Trustees

Ex-Officio City New York
HON. JAMES J. WALKER, *The Mayor.*
HON. WALTER R. HERRICK, *The President, Dept. of Parks.*

Class of 1932

HENRY FAIRFIELD OSBORN
GEORGE F. BAKER
ROBERT S. BREWSTER
EDWARD S. HARKNESS
EDWIN THORNE
IRVING K. TAYLOR
HARRY PAYNE BINGHAM
LANDON K. THORNE
J. WATSON WEBB
OLIVER D. FILLEY
DE FOREST GRANT
H. DE B. PARSONS

Class of 1933

MADISON GRANT
WILLIAM WHITE NILES
FRANK K. STURGIS
LEWIS RUTHERFURD MORRIS
ARCHER M. HUNTINGTON
GEORGE D. PRATT
*T. COLEMAN DU PONT
CORNELIUS R. AGNEW
HARRISON WILLIAMS
MARSHALL FIELD
OGDEN L. MILLS
VINCENT ASTOR

Class of 1934

GEORGE BIRD GRINNELL
MORTIMER L. SCHIFF
FREDERIC C. WALCOTT
GEORGE C. CLARK
W. REDMOND CROSS
HENRY FAIRFIELD OSBORN, JR.
GEORGE GORDON BATTLE
BAYARD DOMINICK
ANSON W. HARD
ROBERT GORDON MCKAY
KERMIT ROOSEVELT
GRAFTON H. PYNE

* Deceased

Officers of the Society

General Offices, 101 Park Avenue, New York, N. Y.

President: Madison Grant,

Honorary President: Henry Fairfield Osborn,

First Vice-President: Frank K. Sturgis,

Second Vice-President: Kermit Roosevelt,

Secretary: William White Niles, 101 Park Avenue,

Treasurer: Cornelius R. Agnew, 82 Beaver Street, New York, N. Y.

Assistant Treasurer: The City Bank Farmers Trust Company

Executive Committee

Madison Grant, *Chairman*

William White Niles,
Frank K. Sturgis,
W. Redmond Cross,
Henry Fairfield Osborn, Jr.,
Bayard Dominick,
De Forest Grant,
George C. Clark,
Kermit Roosevelt,

Cornelius R. Agnew, *Ex-officio.*

General Officers

W. Reid Blair, *Director, Zoological Park,*

William T. Hornaday, *Director Emeritus,*

Charles H. Townsend, *Director, New York Aquarium,*

H. C. Raven, *Prosector,*

H. de B. Parsons, *Consulting Engineer,*

R. L. Cerero, *Bursar,*

Hermann W. Merkel, *Consulting Landscape Architect.*

Pension Board

Lewis Rutherfurd Morris, *Chairman,*

Cornelius R. Agnew, *Treasurer,*

Lee S. Crandall, *Secretary,*

W. Reid Blair,
H. R. Mitchell,
George Bird Grinnell,
W. Redmond Cross,
Charles H. Townsend,
George C. Clark.

Committees of the Society

Finance Committee

FRANK K. STURGIS, *Chairman.*

GEORGE C. CLARK, LANDON K. THORNE,

W. REDMOND CROSS,

CORNELIUS R. AGNEW, *Ex-officio.*

Auditing Committee

WILLIAM WHITE NILES, *Chairman.*

GEORGE C. CLARK, GRAFTON H. PYNE,

MADISON GRANT, *Ex-officio.*

Art Committee

FRANK K. STURGIS.

Editorial Committee

MADISON GRANT, *Chairman.*

W. REID BLAIR, CHARLES H. TOWNSEND,

WILLIAM BEEBE, GEORGE BIRD GRINNELL,

ELWIN R. SANBORN, *Secretary.*

Nominating Committee for Officers and Committees

LEWIS RUTHERFURD MORRIS, *Chairman.*

GEORGE C. CLARK, GEORGE BIRD GRINNELL.

Nominating Committee for Board of Trustees

WILLIAM TURNBULL, *Chairman.*

CHARLES DE RHAM, CHARLES A. DANA.

Publicity Committee

W. REID BLAIR, *Chairman.*

RAYMOND L. DITMARS, ELWIN R. SANBORN,
WILLIAM BEEBE, ROBERT GORDON MCKAY,
CHARLES H. TOWNSEND, DE FOREST GRANT.

Committee on Laboratory Plans

LEWIS RUTHERFURD MORRIS, *Chairman.*

GEORGE C. CLARK, W. REID BLAIR,
CHARLES H. TOWNSEND.

Executive Staff

Officers of the Zoological Park

W. Reid Blair, *Director and General Curator,*
H. R. Mitchell, *Manager,*
R. L. Ditmars, *Curator, Mammals-Reptiles,*
Lee S. Crandall, *Curator, Birds,*
Charles V. Noback, *Veterinarian,*
William Beebe, *Honorary Curator of Birds,*
William Mitchell, *Cashier,*
Charles Renner, *Civil Engineer and Constructor,*
Claude W. Leister, *Ass't to Director and Curator, Educational Activities,*
Elwin R. Sanborn, *Editor and Photographer.*

Officers of the Aquarium

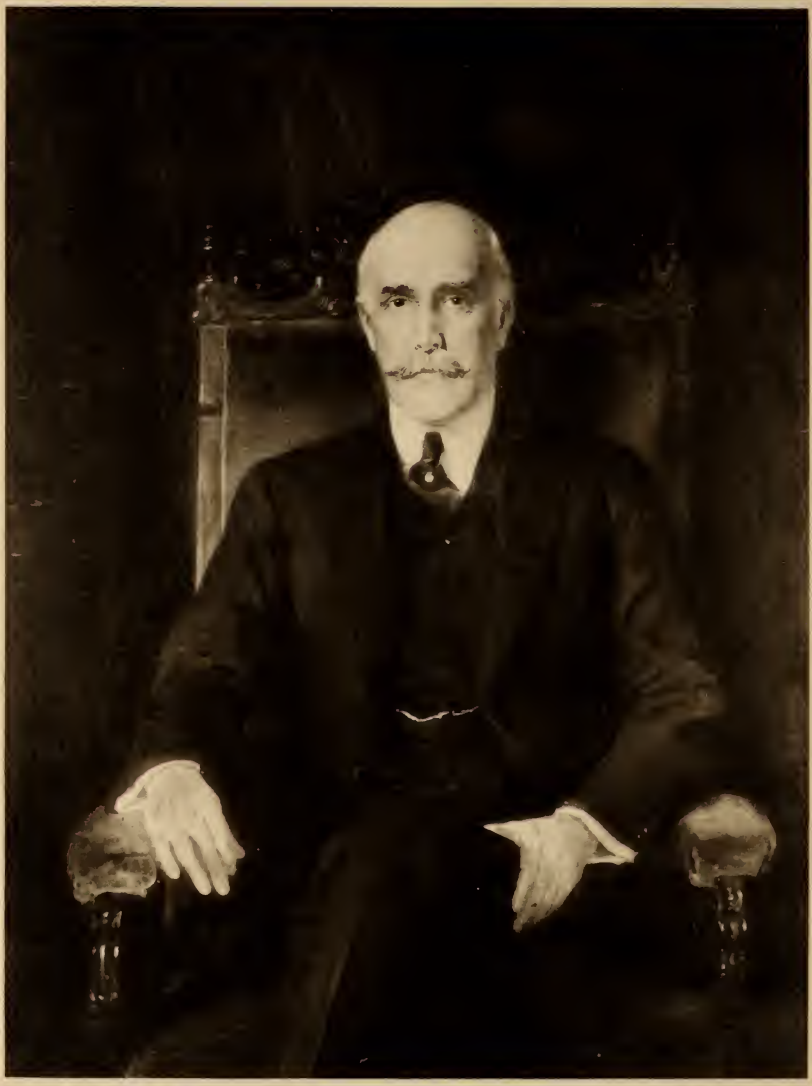
Charles H. Townsend, *Director,*
Charles M. Breder, Jr., *Research Associate,*
Marvin C. Fenstemaker, *Secretary,*
William C. Bennett, *Chief Engineer.*

Officers of the Department of Tropical Research

William Beebe, *Director,*
John Tee-Van, *General Assistant,*
William K. Gregory, *Scientific Associate,*
Gloria Elaine Hollister, *General Technician.*
Jocelyn Crane, *Laboratory Assistant,*

Staff, Kartabo, Bermuda and Arcturus Research Work

William K. Gregory,
Charles J. and Marie Fish,
Lee Boone,
Henry B. Bigelow,
A. L. Treadwell,
C. H. Curran,
S. H. Williams,
G. C. Robson,
E. Newton Harvey.



MADISON GRANT

REPORT OF
THE EXECUTIVE COMMITTEE
Madison Grant, *Chairman*

THE past year has been an interesting and eventful one for the Society. A substantial advance has been made both in the Park and the Aquarium, in the addition of needed improvements and in the general condition of the buildings and grounds.

The Society suffered a serious blow in the death on May 3 of Mrs. Grace Fairchild Osborn, which occurred on August 26, 1935. Mrs. Osborn had taken a keen interest in the Society from its inception, was a member of the Ladies' Auxiliary, of which she continued to be a Director until her death, and she also served as a Trustee of the New York Zoological Society. She had further shown her interest in the Society by the gift of the Bird Houses of the Society and by the gift of the Osborn Memorial Tower in the Bird Park.

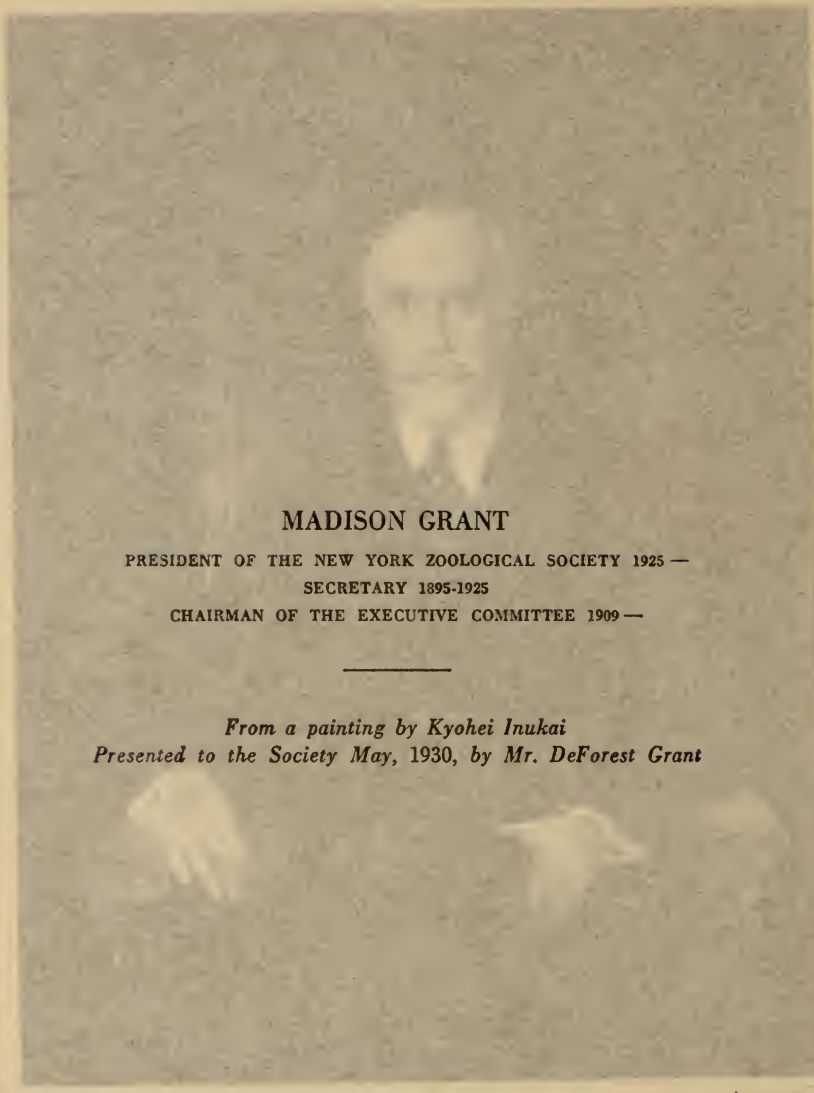
The Society also lost by death on October 31, 1935, its first President, Mr. Henry H. Benkard, a director and generous friend of the Society. He had given much time and thought to the affairs of the Society as a member of the Executive Committee and Board of Trustees.

Mr. T. Coleman du Pont, elected a Trustee of the Society on December 11, 1916, Mr. du Pont, while not an active member of the Board, was an interested and generous Trustee. He made many substantial contributions to the Society's Endowment Fund and by subscriptions to the Tropical Research Fund.

Mr. Vincent Astor was elected a Trustee of the Society to fill Mr. Wilson's and Mr. Kermit Roosevelt was elected a member of the Executive Committee and Second Vice-President.

Mrs. Henry H. Winston and Mrs. T. Coleman du Pont were elected Honorary Life Members of the Society.

Dr. Lewis R. Morris and Mr. Frederic J. Wood have elected Founders; Commander George M. Brett, Jr., Otto Kahn, Mr. L. T. Pope and Mr. Anson W. Hard were elected Associate Founders and Dr. De Forest Grant was elected a Patron of the Society.



MADISON GRANT

PRESIDENT OF THE NEW YORK ZOOLOGICAL SOCIETY 1925 —
SECRETARY 1895-1925
CHAIRMAN OF THE EXECUTIVE COMMITTEE 1909 —

From a painting by Kyohei Inukai
Presented to the Society May, 1930, *by Mr. DeForest Grant*

REPORT OF
THE EXECUTIVE COMMITTEE

MADISON GRANT, *Chairman*

THE past year has been an interesting and eventful one for the Society. A substantial advance has been made both at the Park and the Aquarium, in the addition of needed improvements and in the general condition of the buildings and grounds.

The Society suffered a serious blow in the death of Mrs. Henry Fairfield Osborn, which occurred on August 26, 1930. Mrs. Osborn had taken a keen interest in the Society from its inception. She founded the Ladies' Auxiliary, of which she continued its President until her death, and she also started the Ladies' Auxiliary Endowment Fund. She had further shown her interest by her attendance at the Annual Meetings of the Society and by acting as hostess at the Annual Garden Party.

The Society also lost by death on October 31, 1930, its active Vice-President, Mr. Henry D. Whiton, a sincere and generous friend of the Society. He had greatly endeared himself to his associates on the Executive Committee by his kindly personality.

Mr. T. Coleman du Pont, elected a Trustee in 1920, died November 11, 1930. Mr. du Pont, while not an active member of the Board, was an interested and generous Trustee. He evidenced his interest by substantial contributions to the Society's Endowment Fund and by subscriptions to the Tropical Research Fund.

Mr. Vincent Astor was elected a Trustee in place of Mr. Whiton, and Mr. Kermit Roosevelt was elected a member of the Executive Committee and Second Vice-President.

Mrs. Henry D. Whiton and Mrs. T. Coleman du Pont were elected Honorary Life Members of the Society.

Dr. Lewis R. Morris and Mr. Frederic C. Walcott were elected Founders; Commander George M. Dyott, Mr. Otis Barton, Mr. E. T. Weir and Mr. Anson W. Hard were elected Associate Founders, and Mr. De Forest Grant was elected a Patron of the Society.

Despite the wave of financial depression and unemployment through which the country passed during the year, the attendance at the Zoological Park exceeded that of the year 1929 by 23,164, the total attendance amounting to 2,923,192. The attendance at the Aquarium also exceeded the attendance of the previous year by 157,950. The total attendance for 1930 was 2,623,661.

Much new work was done both at the Park and the Aquarium during the year. The work at the Park included stairway approaches to the new Privilege Building near the West Farms Entrance and the complete rebuilding of the Flying Cage. The installation of oil burners in the Primate, Reptile and Large Bird Houses, now operating satisfactorily, have greatly reduced the labor and have added to the certainty of maintaining the proper temperature in these buildings.

The work at the Aquarium consisted of the installation of the new lighting system and of additional tanks to occupy the space formerly occupied by the heating and pumping plant. This work is not completed but was advanced substantially during the year. All these improvements were financed by the City, except the approach to the Privilege Building, which was paid for out of Privilege Income. A small difference between the amount appropriated by the City for rebuilding the Flying Cage and the actual cost of the work was paid by the Society.

A contract was awarded during the year for the building of a new Comfort Station adjoining the Bird House, the cost of which was appropriated by the City. Plans were prepared for the extensive work of draining, grading and repaving Baird Court,—a much needed improvement, for which the City has made an appropriation of $50,000, which is expected to cover the cost of the work.

The design and plans for the Paul Rainey Memorial Gate, which Mrs. Grace Rainey Rogers has presented to the Society, were completed and will be submitted shortly to the Municipal Art Commission for approval. It is expected that the work on this truly monumental gateway will be commenced during the coming year.

The Society was fortunate in acquiring an excellent portrait of its President, painted by Kyohei Inukai, which was presented by his brother, Mr. De Forest Grant. It is now installed in the Trustees' Room of the Administration Building opposite the portrait of the Honorary

President, Professor Henry Fairfield Osborn. The panelling for the setting of the portrait was done under plans prepared by C. Grant La Farge.

The Society's Endowment Fund was increased during the year by the payment of the bequests of Mr. Ogden Mills of $50,000 and $10,000 received from the Executors of Mrs. Alma C. Damon, the income from which was limited by her will to the maintenance of aquaria for small fishes at the Aquarium, the principal to be known as the William Emerson Damon Fund. The bequest of Julia E. Thatcher of $500 was also paid in.

The Society was able to continue its work in the field through the gifts of Mr. Harrison Williams and Mr. Mortimer L. Schiff, who contributed $26,500 toward the expenses of Dr. William Beebe in continuing his work at Bermuda, to which Mr. E. T. Weir added $2,500. The following contributions were received to cover the salaries of Dr. Beebe and his associates:

Robert S. Brewster	$ 500.00
George D. Pratt	1,000.00
George F. Baker	1,000.00
Edward S. Harkness	1,000.00
Coleman Du Pont	2,500.00
Dr. Lewis R. Morris	1,000.00
Frederic C. Walcott	1,000.00
Edwin Thorne	500.00
Anson W. Hard	500.00
	$9,000.00

Through the generosity of Mr. Vincent Astor in loaning his yacht *Nourmahal*, an expedition by Director Townsend was made possible to the Galapagos Islands. The Expedition resulted in exploration of the unexplored interior of Indefatigable Island, the capture of eight specimens of its peculiar species of tortoise, formerly believed extinct, and the transport to New York of 265 live fishes altogether different from any hitherto exhibited here,—a very remarkable performance when it is taken into consideration that these fish had to be kept alive in tanks for the three thousand mile trip.

Dr. Blair was sent by the Society to Barro Colorado Island to observe the work that is being done at the Biological Laboratory. Dr. Blair's trip to Barro Colorado enabled him to bring back a detailed description of the island and the animal life existent there, and to observe and report on the biological work being done. The report was so favorable that the Committee contributed $300 to its maintenance, and in return for this donation the Society has been accorded accommodations on the Island for one of its representatives as from time to time it may be deemed advisable to have some one visit it. Dr. Blair reported the Island as swarming with bird life which is excellently protected by the insular position of this sanctuary.

Dr. Beebe's expedition was a great success, resulting in extensive additions to the knowledge of deep sea life not only through the customary dredging, but through the descent by Dr. Beebe to a depth of 1,400 feet, a depth hitherto undreamed of. This descent was made possible through the use of a spherical diving apparatus, the gift of Mr. Otis Barton, who accompanied Dr. Beebe on this particular dive.

The details of these three expeditions will appear in the reports of Dr. Blair, Dr. Townsend and Dr. Beebe.

The Executive Committee continued its policy of contributing to the leading organizations engaged in active work of wild life protection as follows: $1,000 to the Wild Life Protection Society of South Africa for the protection of wild life in the Kruger National Park; $1,000 to the Society for the Preservation of the Fauna of the British Empire; $1,000 to the State-County Parks and Beaches Association toward the establishment of the San Diego Lagoon; $500 to the International Game Protection Committee, represented by Dr. Van Tienhoven and Dr. Derschied; $300 to Mr. A. B. Howell for conservation work; $500 to the International Wild Life Protection Committee, American Branch, for work in investigating Nagana, and $500 to the committee of the American Society of Mammalogists, of which Mr. H. E. Anthony is Chairman, which has undertaken to make a scientific study of predatory animal control work in cooperation with the Biological Survey.

Mr. Kermit Roosevelt was appointed by the President to represent the Zoological Society on the International Wild Life Protection, American Committee.

The Secretary and the Director of the Zoological Park were designated by the Chairman as a special committee to attend the Conference on State Parks held at Linnville, North Carolina, on June 17, 1930, with a special view to keeping the Society posted as to the efforts being made by those interested in park development in providing game sanctuaries.

Resolutions were passed by the Society at its Annual Meeting on January 14, 1930, strongly opposing the indiscriminate slaughter of Alaskan Brown and Grizzly Bears, and calling upon the Government to set aside suitable islands in the Alaskan territory as inviolate sanctuaries for these animals, and approving the passage of a Federal act to protect the American Bald Eagle in Alaska.

Dr. Blair and Dr. Townsend were appointed a committee to attend a conference called by Mr. Copley Amory to meet in July, 1931, for the purpose of discussing game conservation, periodicity, and other problems connected with wild life protection.

A Committee on Record Heads was appointed during the year, consisting of Mr. Kermit Roosevelt, Chairman, Mr. W. Redmond Cross and Mr. Hubert Litchfield, whose purpose is to advise the Society as to what extent its exhibits are unique and to protect it in the purchase of additional specimens.

The Society is indebted to the Boone & Crockett Club for a loan of books to be added to the Society's library, where they will be arranged for the use of members of the Society and appropriately identified.

During the year the paintings of the Society's Art Gallery were reproduced in brochure form and sent to all the members of the Zoological Society who requested it. A limited number of copies of this brochure is available for future members.

Continuing the Society's policy for building up the gallery of wild animal paintings, it will be of interest to know that an oil painting of the Wolverine, by Carl Rungius, was added to the gallery during the year.

The research work of the Society, which has been expanded considerably under the able initiative of Dr. Noback, has been carried on in very limited quarters which were constructed for an animal hospital, and the Chairman of your Committee has had in mind for some time

the advisability of erecting a separate laboratory building. It was decided to devote the surplus income of the Society for the year 1930 to the amount of $20,000 to erecting the first unit of such a building, and a committee was named to take charge of the matter, consisting of Dr. Lewis R. Morris, Chairman, Mr. George C. Clark, Dr. W. Reid Blair and Dr. C. H. Townsend. This Laboratory Committee will examine into the general subject of laboratory construction and determine the special problems which our collections are best fitted to solve.

Dr. Claude W. Leister, who joined the Zoological Park in October 1929, has been engaged in developing the educational activities along the lines of a modified Docent service, the giving of illustrated talks and lectures concerning the Park and its collections, and the preparation of visual instruction materials for the use of the public and high schools of the city.

A book entitled "Present Day Mammals" is being prepared for publication. It is believed that this will be found serviceable to teachers and students now making use of our collections for instruction in zoology and natural history.

A brief summary of the Society's maintenance cost for the year 1930 is as follows: The total cost of maintaining the Zoological Park for the year was $415,771.31, of which $350,170.92 was contributed by the City and $65,600.39 by the Society. The total cost of maintaining the Aquarium was $98,309.48, of which $81,343.18 was contributed by the City and $16,966.30 by the Society.

The physical appearance of the grounds and buildings has been exceptionally well maintained due to the fact that the Association for Improving the Condition of the Poor has supplied a large number of laborers to the Society who have been used in clearing out the woods, keeping the grounds in good condition, painting the iron work and nettings, and doing some repair work.

A change in the designation of the directors of the Society as "Managers" to "Trustees" was deemed advisable as being more dignified and better describing the function and duties of those entrusted with the property of the Society and the carrying into effect of its objects as set forth in its Charter. Through the kindness of the Hon. Abbot Low Moffat, Assemblyman from this City, a bill was passed by the Legislature during the session of 1930 authorizing the change,

which was duly approved by the Governor and by this amendment to the Charter the "Managers" became "Trustees" and have since been and will continue to be so designated.

RECEPTIONS

The Twenty-second Annual Dinner to the Board of Trustees was held through the courtesy of Mr. William White Niles at the University Club on Saturday, December 27, 1930. Immediately after the dinner the Annual Meeting of the Board of Trustees was held.

The Spring Meeting of the Board of Trustees was held in the Administration Building on May 22, 1930. The meeting was preceded by a luncheon and followed by the Annual Garden Party.

MEMORANDUM OF MEETINGS
1931-1932

Annual Meeting of the Society:
January 19, 1932
Hotel Waldorf Astoria

Meetings of Board of Trustees

Annual Meeting:
December 26, 1931

Spring Meeting—Park:
May 21, 1931
Preceded by luncheon

Executive Committee Meetings:
2nd Thursday Monthly

January 8
February 12
March 12
April 9
May 14
June 11
October 8
November 12
December 10

In Memoriam

HENRY D. WHITON

T. COLEMAN du PONT

Extracts from the minutes of the 356th Meeting of the Executive Committee held on Thursday, November 13, 1930

Resolved that the Executive Committee of the New York Zoological Society desires to express its deep sorrow at the loss of their associate, Henry D. Whiton. Mr. Whiton was the Vice-President of the New York Zoological Society for many years and has shown his interest in its welfare both by munificent gifts and by close attention to the details of his responsible position.

His unfailing devotion to the interests of the Society and the charm of his personality have endeared him to his associates so that each one of them feel a deep sense of personal loss. To the Society his decease has been a very serious blow.

Resolved further that this resolution be spread at large on the Minutes and a copy sent to Mr. Whiton's family.

Resolved that the death of T. Coleman du Pont is a serious loss to the Society. He had from his election to the Board in 1920 shown a keen interest in the Society and had contributed liberally to its various activities, especially to Tropical Research. He had also made liberal contributions to the Endowment Fund.

Of recent years serious illness had prevented his attendance at meetings of the Board, but he was personally known by most of its members and his death is a matter of deep regret.

Resolved further that this resolution be spread at large on the Minutes and copy sent to Mr. du Pont's family.

In Memoriam

MRS. LUCRETIA PERRY OSBORN

Extracts from the minutes of the 355th Meeting of the Executive Committee held on Thursday, October 9, 1930

"The death of Mrs. Lucretia Perry Osborn, wife of Honorary President Henry Fairfield Osborn, on August 26, 1930, was a great loss to the New York Zoological Society.

From the date of Professor Osborn's first connection with the Society, at its inception, up until her last moments Mrs. Osborn had shown a keen interest in the Society and all its activities. She rarely missed one of its public functions and her gracious presence at the Annual Meeting of the Society and at its Spring Garden Party gave a distinction to those occasions which made them unique.

Mrs. Osborn organized the Ladies' Auxiliary and was its first president, holding office continuously until her death. Largely through her efforts the Ladies' Auxiliary's contribution to the Endowment Funds of the Society was raised.

In recognition of its debt of gratitude to Mrs. Osborn, the Secretary is directed to enter this tribute in the minutes of this meeting and to send a copy to Professor Henry Fairfield Osborn, with an expression of the deep sympathy of the Committee in the loss that he and his family have sustained, and it is

Ordered, that to all references to the Ladies' Auxiliary in the reports and other proceedings of the Society the words "organized by Mrs. Henry Fairfield Osborn" be added in order that her name may be kept permanently alive in the records of the Society.

On motion, these resolutions were unanimously adopted and the Secretary requested to send a copy to Professor Osborn.

Members' Day and Ladies' Day at the Zoological Park:
May 21, 1931, 3:00 P. M.

AUDITING

The Auditors, Messrs. Peat, Marwick, Mitchell & Co., have audited and found correct the accounts of the Society.

The Auditors' Report, as well as that of the Auditing Committee, follows the Report of the Treasurer.

ACKNOWLEDGMENTS

The thanks of the Society are due to Dr. Blair and Dr. Townsend and to the officials of the Park and Aquarium for their conscientious and satisfactory service which has kept both institutions at the same high standard which they have maintained in the past.

MADISON GRANT, *Chairman*

WILLIAM WHITE NILES	HENRY FAIRFIELD OSBORN, JR.
FRANK K. STURGIS	DE FOREST GRANT
BAYARD DOMINICK	KERMIT ROOSEVELT
WILLIAM REDMOND CROSS	GEORGE C. CLARK

CORNELIUS R. AGNEW, *Ex-officio*



One of the spermophiles. *Spermophilus brevicaudus,* found in the Zoological Park.

REPORT OF

LADIES' AUXILIARY

Of The New York Zoological Society, 1930

THE Ladies' Auxiliary has sustained a great loss in the death of its beloved Chairman, Mrs. Henry Fairfield Osborn, who was elected at the organization meeting in February, 1908, and continued in office up to the time of her death on August 26, 1930, a period of twenty-two years. At the meeting of the Auxiliary in November 1930, the following minute was adopted:

"From the time that Professor Osborn became Chairman of the Executive Committee of the Zoological Society in 1896 Mrs. Osborn took the keenest interest in the early development of its plans and frequently drove through the then undeveloped Borough of the Bronx into the rough and uncultivated area finally selected for the Zoological Park. She acted as hostess for the afternoon meetings of the Executive Committee in the period of 1896-1903 and again 1907-09, entertaining the group of distinguished and public spirited men under whose direction the expanding and beautiful plans were developed. As the Society grew in popular interest and in social prestige Mrs. Osborn initiated the charming evening receptions in the Waldorf-Astoria which, beginning with very small gatherings, now constitute one of the attractions of a New York winter.

"In 1908 the wives of a number of Trustees came together to form the Ladies' Auxiliary, for the quadruple purpose of adding to the Endowment Fund, attracting visitors to the Park, through an annual reception and garden party in the month of May, the formation of a Junior Auxiliary of the children of members which has expanded into its present large membership, and, through the children, of presenting living animals to the Zoological Park collection. Thus under Mrs. Osborn's leadership the Ladies' Auxiliary has gradually become an inspiring and widening influence in the social and intellectual life of New York, especially in the attraction of the whole field of natural history.

"It is hard to realize that when the Society started, few people could even pronounce the word *zoology* or grasp its significance. Only those behind the scenes can form any idea of the energy, determination and courage with which Mrs. Osborn often faced discouraging situations while those who attended the meetings in the Waldorf Astoria and in the Zoological Park only saw her countenance radiating the joy of success and of courteous and sincere hospitality.

"Mrs. Osborn's example is most inspiring to those who are continuing the leadership of women in spreading the love of nature and the enjoyment and conservation of the beauties of animal and plant life so wonderfully displayed in the Zoological Park and in the many scientific branches under the direction of its distinguished scientific staff."

At the November meeting Mrs. E. Marshall Field was elected as chairman to take the place of Mrs. Osborn and the following new members were elected to membership in the Ladies' Auxiliary: Mrs. Turnbull Wood and Mrs. Averell Clark. Mrs. E. M. Townsend's resignation was accepted with regret.

The Endowment Fund: The endowment fund has now reached the sum of $5680.

The Junior Auxiliary: Through the efforts of Mrs. Michalis the Junior Auxiliary reports continued progress in obtaining new membership and a balance of $1700 in the treasury, representing dues received in the past two years. With that sum the Junior Auxiliary hopes soon to make a gift of another specimen to the Zoological Park.

The spring meeting was held in April at the home of Mrs. Henry Rogers Benjamin, when Dr. Claude W. Leister kindly gave an illustrated talk entitled "The Home Life of Birds" which was most enthusiastically received by all.

It is hoped that the work of this committee will continue to grow as it is largely through the interest of the younger generation that the future membership of the Zoological Society depends. Anyone wishing to enroll children in the Junior Auxiliary may communicate with Mrs. Clarence Michalis, 455 Madison Avenue, New York City.

The Garden Party: The garden party was given on May 22, 1930, by the Ladies' Auxiliary and the Board of Trustees for the members of the New York Zoological Society, about four hundred of whom were present. Tea was served on the lawn outside the Administration Building and an excellent band played throughout the afternoon. Several specimens obtained by the Vincent Astor Galapagos Expedition were shown for the first time in special cages built for them.

BRONX PARK TOURS

Summer Season, 1930

Miss Pauline Robinson has continued the splendid work of collecting funds for and arranging the children's excursions to the Zoological Park. The report of one of her committee follows: "Strange as it may seem, there are still thousands of children in Greater New York who have never visited Bronx Park and the Zoo.

"The children of Manhattan and the Bronx have been fortunate in having facilities for reaching the park easily, but to many children in the other boroughs, it is a strange land known only through stories and pictures.

"During the past summer several hundred children from the outlying districts of Queens, Brooklyn and Staten Island were given an opportunity to enjoy a day at the Zoo. These trips involved more expense than the regular bus service between Manhattan and the Bronx, but it was money well spent and rich in returns of joy and enthusiasm.

"As in the previous summer, the leadership was voluntary. These young teachers who are here for summer school training, get as great a thrill as the children and are just as reluctant to leave when the day is over.

"The guides at the Zoo are always courteous and helpful in answering the many questions put to them regarding the habits and history of the animals.

"A general discussion among several of the groups regarding the most popular animals resulted in a large vote for the 'penguins',—the 'little men' the children called them,—the second choice being the terrible 'Mandrill'.

"The frightful ugliness of that beast seemed to fascinate the children more than almost any of the other interesting animals.

"The bus ride offers the beginning and end of a long remembered day, and the thanks of the children are hereby extended to all those who made these delightful outings possible."

Following is a list of the contributions for Children's Excursions to the Zoological Park and a statement in detail showing the distribution of the costs, and various other items:

FUND FOR CHILDREN'S EXCURSIONS TO THE ZOOLOGICAL PARK
Summer Season, 1930

Mrs. George Baker	$ 50.00
Mrs. E. Marshall Field	50.00
Mrs. William B. Osgood Field	10.00
Mrs. Harry Forsythe	10.00
Mrs. Morgan Hamilton	10.00

Mrs. Gordon McKay	5.00
Mrs. Shelton Martin	5.00
Mrs. Clarence Michalis	5.00
Mrs. Stephen H. Olin	10.00
Miss Mary Parsons	10.00
Mrs. Percy R. Pyne	10.00
Mrs. Henry M. Tilford	25.00
Mrs. Alexander S. Webb	20.00
Mrs. Frank S. Witherbee	50.00
Mrs. George Whitney	20.00
Anonymous	6.00
Total	$296.00

BRONX PARK OUTINGS

Season 1930

Group from	Date	Cost Carfares	No. of Children	Leaders
3 City Playgrounds Hamilton Field Seward Park Corlears Park	April 23	$10.00	100	6
Hamilton House Market Street	April 24	Bus 15.00	75	3
Jamaica—Queens P.S. 50 playground	May 17	Bus 25.00	80 children 4 mothers	3
Astoria—Queens Ditmers Avenue playground	May 24	Bus 25.00	80 children 3 mothers	3
College Point Chisholm Park	June 7	Bus 25.00	75 children 5 mothers	3
Bellevue-Yorkville Health Center	June 14	Bus 15.00	50 children 4 mothers	2
Columbus Hill District—Colored Children	June 21	Bus 15.00	70 children 4 mothers 5 babies	3
Bowen Park playground Flushing, L. I.	July 2	Bus 25.00	75 children 3 mothers	3
West 67th St., Manhattan	July 8	Bus 15.00	75 children 4 mothers	3
Long Island City Vernon Avenue	July 11	Bus 25.00	100	4
Day Nursery Children Manhattan	July 11	Bus 15.00	75 children 5 mothers	3

Boys' Baseball League	July 12	Bus 15.00 4 cars donated	250	5
East 24th St. (Street Play Group)	July 15	Bus 15.00 3 cars donated	100	4
Stapleton-Staten Island Gordon St. Playground	July 17	Carfares 5.00 Ferry 5.00	50 children 5 mothers	2
West New Brighton, S. I. Henderson Ave. Group	July 22	Carfares 5.00 Ferry 5.00	55 children 5 mothers	2
Catholic Day Nurseries	July 22	Bus 15.00	76 children 4 mothers	3
Brooklyn Metropolitan Ave. Pier	July 29	Bus 15.00	95 children 3 mothers	3
Yorkville Community Center	August 5	Carfares 6.00	60 children 4 mothers	2
		$296.00	1599	57

Mrs. E. Marshall Field, *Chairman*

Mrs. Clarence G. Michalis
Chairman, Junior Auxiliary of the Ladies' Auxiliary

Miss Pauline Robinson
Chairman, Ladies' Auxiliary, Children's Excursions, Zoological Park



Snow leopard; a species frequenting the snowy areas of mountain elevations and cold northern climes.

REPORT OF THE
DIRECTOR OF THE ZOOLOGICAL PARK

W. Reid Blair

TO nearly three million people during the past year the Zoological Park has offered some measure of instruction, entertainment or recreation, and by reason of this good service it forms a sound basis for intelligent public relations between a public institution such as ours and the citizens it serves.

To bring together from far and wide a rich collection of the fauna of the world, and maintain it in healthy and comfortable surroundings and render it available to the millions of knowledge-seeking people, is a task both pleasing and interesting. As in former years, we are indebted to many friends, at home and abroad, who have manifested their interest in the Zoological Society by presenting to the Park both rare and well-known specimens of mammals and birds for the benefit of our visitors.

The more important accessions of mammals during the year included a pair of Hartmann mountain zebras presented by the Junior Auxiliary, a female Grevy zebra, a beisa antelope and three grizzly bear cubs from British Columbia. A young male Indian elephant named "Runga," a tiger, two Indian leopards, two Himalayan bears and a hoolock gibbon were presented by Commander George M. Dyott.

In the bird collection new arrivals included a pair of common rheas and a fine pair of Darwin rheas, the latter never before having been present in our collections, and a pair of Victoria crowned pigeons from New Guinea. The bird of paradise collection was increased by the purchase of a male Wallace's Standard-Wing. We now have thirteen species of the birds of paradise in splendid condition. This is probably the largest collection ever gathered in a public institution.

In the reptile collection the chief attractions just now are two ex-

ceptionally large king cobras and three Gaboon vipers, both species having been acquired during the year.

The health of the animal collections has remained good throughout the year. Among the important losses was that of Silver King, the male polar bear captured in the Arctic Ocean in 1910 by the late Paul J. Rainey. As Silver King was full-grown when he was captured and lived nearly twenty years in the Park, it was estimated that his age at the date of death was about twenty-eight years. The female captured at the same time is still in good health and does not show evidence of declining health.

The remodeling of Silver King's enclosure has provided accommodations for the five young polar bears presented to the Park by Colonel William Hayward and Mr. Philip M. Plant. These bears continue to develop well and attract a great deal of attention.

Other important losses were the kiang, or Asiatic wild ass, which accidentally fractured a hind leg and had to be destroyed, and a Grevy zebra mare that had been in the Park for more than seventeen years.

The young female gorilla, which was received in October, 1928, continues in excellent health and now weighs fifty-five pounds. She weighed seventeen pounds when received and has therefore gained thirty-eight pounds in a little over two years.

ATTENDANCE

That the Zoological Park's collections continue to maintain their interest for the public is evidenced by the constantly increasing attendance. Visitors to the Park during the year 1930 numbered 2,923,192. This constitutes a record attendance for any single year and brings the number of visitors to the Park since it was opened in November 1899 to the huge total of nearly 57,000,000. The record attendance for a single day was registered on Sunday, May 4, when 82,609 were recorded.

The monthly attendance for 1930 and the corresponding figures for the previous year are as follows:

	1930	1929
January	65,440	80,294
February	146,156	148,972

March	180,483	264,434
April	334,872	212,351
May	416,203	353,939
June	369,602	382,746
July	318,163	383,689
August	336,850	347,843
September	313,619	304,727
October	215,614	214,814
November	146,836	105,847
December	79,354	90,598
	2,923,192	2,890,254

SCIENTIFIC AND EDUCATIONAL ACTIVITIES

Members of the Zoological Park staff have taken an active part in various scientific and educational activities which have had a distinct bearing on those objects for which the Society was originally organized. Many lectures have been given to groups of teachers and educational institutions by our officers. In cooperation with the Department of Parks it was arranged to give a series of six radio talks over the municipal station WNYC. These concerned the administrative problems of the Zoological Park and featured the new arrivals and collections in general.

In the early summer a special broadcast entitled "A Trip to the Zoo," in which the various animal voices were broadcast for the first time in this country, went out over station WEAF and a chain of eleven other stations.

At the annual meeting of the American Society of Mammalogists held in New York City in May, 1930, members of the Zoological Park staff contributed to the program of the Symposium on the Utilization of Zoological Park Collections for Research as follows:

"Exhibition of Rare Mammals in the Zoological Park." Claude W. Leister. Lantern slides.

"Reaction of Anthropoid Apes to Training and Experiments in Finger-printing among the Primates." Raymond L. Ditmars. Motion Pictures.

"Direct Bone Formation in the Tines of American Wapiti." Charles V. Noback. Lantern slides.

"Types of Intestinal Parasites Found in a Survey of Mammals in the Zoological Park." Gervaise W. McClure.

"Problems that Arise in the Care of a Captive Young Gorilla." Charles V. Noback.

"The Domestic Dog of Papua." Lee S. Crandall. Lantern slides.

Mr. C. J. Renner presented a paper entitled "Park Economy" before the annual meeting of the American Institute of Park Executives at St. Louis in September.

Mr. G. W. McClure, working under a Zoological Society Research Scholarship, has been engaged in making a general survey of the internal parasites found in our collections. Interesting findings are being made and these will later be available through publication in Zoologica.

In all these respects it is believed that the Society has earned the confidence of the general public, which it appears to enjoy in such generous measure.

CONSTRUCTION

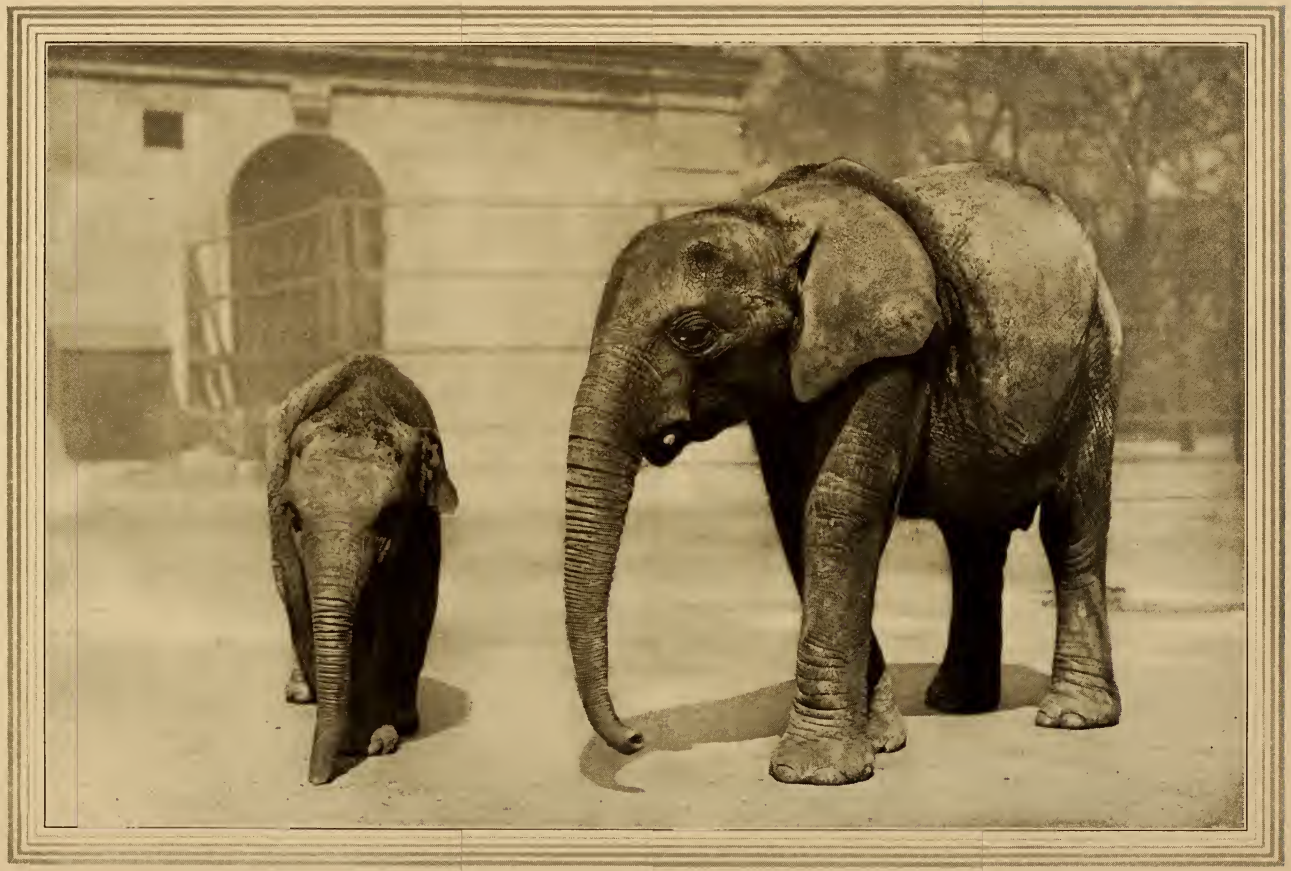
In addition to the regular current work of maintenance additional work has been made possible by reason of some 250 extra men furnished us by the Emergency Work Bureau and the New York Association for Improving the Condition of the Poor. These men were assigned to various departments in the Park for the work of excavating for water pipes, filling and grading certain places, assisting in the pruning and cutting out of dead limbs and trees in the forests on the east side of the Bronx River, and in the planting of new trees from our own nursery stock. A great deal of painting was also done by these men.

A new brick shelter house forty feet long was erected in the Cranes' Paddock and all the work was performed by these Emergency laborers, some of whom are masons, bricklayers and carpenters.

The supervision and assignment of labor for such a large force of men materially increased the work of the several departments of



A reflection; Sea-lion Pool, Baird Court.



African pygmy elephant and a baby Indian elephant. The latter was a gift of Commander George M. Dyott.



Bontebok; one of the African antelopes that has thrived in the Zoological Park.



American bison with calf born in the Zoological Park.



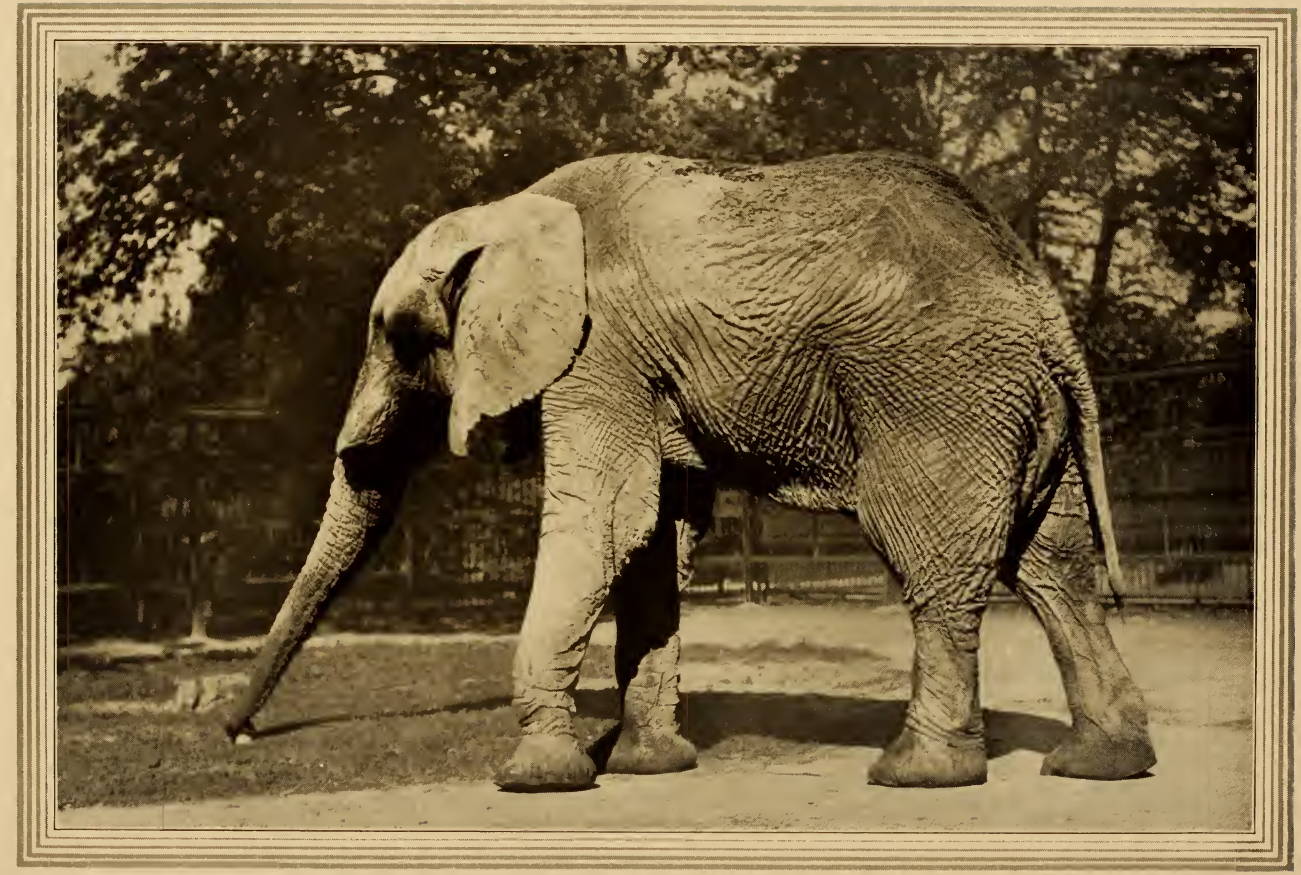
Addra gazelle—Africa.



American Elk. This specimen is a direct descendant of Stanley I. a young elk taken at Stanley Basin, Idaho, in 1901.



Malay sambar deer with antlers in velvet.



African elephant Kartoum in 1930.

the Park but this was handled very satisfactorily without increased help by our regular staff.

The construction of a new Flying Cage to replace the original cage built by the Zoological Society was completed late in the fall of 1930 at a cost of $20,000. This Flying Cage is of the same type and size as the old one but it has some new features. The frame work is of copper-bearing galvanized pipe construction. The wire netting is copper covered, which will prevent rust, and as it will not require painting a considerable cost in maintenance will be saved.

BARRO COLORADO

Acting upon the instructions of the Executive Committee, the Director of the Zoological Park in February visited the Barro Colorado Island Biological Station located in the Panama Canal Zone, for the purpose of studying the work being conducted there by the Institute for Research in Tropical America under the auspices of the National Research Council.

The island was set aside April 17, 1923, by the Governor of the Panama Canal Zone as a National Park and Biological Preserve.

The island and its fully equipped laboratory have been planned for the use of research workers in natural science who wish to become acquainted with a typical area of tropical America. It is chiefly maintained by contributions from private individuals and a number of educational institutions.

Lying but nine degrees north of the Equator, the island with its abundance of animal forms affords an excellent opportunity to study the biological wealth of the typical American tropical species of wild life.

Barro Colorado Island has about six square miles of typical forest and is the largest island in Gatun Lake, the artificial sheet of water which constitutes the central part of the Panama Canal.

The greater part of the island consists of splendid primeval forest growth and furnishes the setting for a great array of interesting mammal, bird and reptile life worthy of serious study.

Before the construction of the Panama Canal, Barro Colorado was considered one of the great hunting grounds of the Republic of Panama.

The flooding of Gatun Lake caused the wild life of the region to concentrate there, so that today animals are more numerous than they were when it was a hilltop.

An incomplete survey of the mammals on the island includes pumas, ocelots, Baird's tapirs, collared and white-lipped peccaries, coatis, sloths, agoutis, howling monkeys, sapajous, marmosets and bats. Perhaps the most interesting species of monkeys on Barro Colorado are the Howlers. These are the largest of the New World monkeys and are found only in Central and South America. Having found a favorable environment on the island, they seem to be thriving and increasing in numbers.

The bird life of the island is interesting because nearly all the species found there are permanent residents of the tropics, and but few of the North American migrating birds are to be seen on the island. The species of birds more commonly seen include crested guans, owls, yellow-headed toucans, blue parrots, parrakeets, cormorants, duck hawks, little blue and Louisiana herons, blue ground doves, woodpeckers, tanagers, yellow-bellied flycatchers and hummingbirds.

While there are not a great number of snakes on the island, there are numerous iguanas along the shore.

There is an abundant food supply on the island to support its inhabitants. The Plant Introduction Department of the Panama Canal Zone has supplied bananas, papayas, plantains, limes, cocoanut and other fruit-bearing trees which have been planted on the island.

Appreciating the value of the scientific opportunities that Barro Colorado offers for original research, the Zoological Society has joined with other institutions in making a small annual subscription for supporting the work of this station.

BERMUDA

The Director of the Zoological Park visited Bermuda during July and spent a week at Nonsuch Island observing the scientific work of the Bermuda Oceanographic Expedition carried on there under the direction of Dr. William Beebe, Director of the Society's Department of Tropical Research.

By reason of an unusually competent staff of assistants and a splendidly equipped laboratory, Dr. Beebe is doing an excellent piece of scientific work at this station. His carefully recorded studies, classifications and descriptions of the species obtained by deep-sea trawling and fish traps are proving to be extremely valuable contributions to our knowledge of the fishes of that region. The wealth of scientific material gathered by Dr. Beebe at Nonsuch will eventually be brought to the Zoological Park. A laboratory and storage accommodations are now being provided in the Park to house these collections.

DEPARTMENT OF MAMMALS

RAYMOND L. DITMARS, *Curator;* JOHN TOOMEY, *Head Keeper*

Among the animal purchases during 1930 were a considerable number of interesting species, some of which were new to the collection. The additions included four black gibbons, a striped hyaena, a spectacled bear, two Branick's giant rats (a very rare animal in collections), a male Siberian ibex of particularly large size, a female Grevy zebra, a pair of Hartmann mountain zebras, a male beisa antelope and a tree kangaroo. Actually the rarest animal acquired was a South American canine, which came to New York from the lower Amazon Valley in a shipment of animals consigned to Ellis Joseph. This appears to be the second known example of its species, the first example having been received at the Zoological Gardens in London, in 1882; it also came from the Amazon Valley. P. L. Sclater named it as a new species, its technical definition being *Canis microtis,** and later a popular title of short-eared dog was applied. This specimen, the type of the species, is now in the British Museum. As far as we are able to determine, no other example of this animal has been found during the period of close to fifty years covering the time from its original description to the acquisition of our specimen in 1930.

Friends of the Society donated a number of valuable specimens during the year. These gifts are listed in detail in another portion of this report. Commander George M. Dyott, returning from an expedition in Siam, presented two fine leopards, a tiger and a young male elephant.

*Now *Cerdocyon microtis.*

There were a considerable number of births. These included six aoudad, six Himalayan tahr, three red deer, two fallow deer, two white-tailed deer, two American wapiti, four axis deer, one Dybowski's deer, two Barasingha deer, one Eld's deer, one guanaco, one vicunia, one blackbuck, two yaks, one Kiang X Onager hybrid, one ring-tailed wallaby, two bears and a bonneted monkey.

The prairie dog colony showed signs of deterioration the past spring as these animals emerged from their hibernating burrows. Twelve new pairs were added to the colony, which was highly interesting in its activity during the summer and autumn months. It is possible, however, that the soil of the entire area should be taken out and replaced with fresh, clean soil. The condition of the replenished colony on emergence to activity during the spring of 1931 will indicate whether or not this is necessary. It has not been done for a period of nearly thirty years and while the surface is frequently raked and always kept clean, there is undoubtedly much old refuse in the numerous burrows.

The beaver exhibit has grown to be steadily more impressive during the past two years, owing to the energetic work of a particularly fine and hard-working pair of these characteristic animals. They have built a house of mud and sticks that is approximately ten feet in diameter and close to five feet high. They have also made various changes upon the old beaver-built dam constructed by a colony in years past. During the fall of 1930 they built an extensive pier of food branches for a winter larder. The whole story of the scheme of beaver activities is clearly shown in the big enclosure. This pair of beavers reared several young during the year.

We were particularly interested to continue our observations this year on the growth of the male African elephant Kartoum. This animal now appears to be the second largest elephant ever exhibited in this country, the record having been the famous "Jumbo." The height of that historic creature is indicated on some old memoranda as ten feet and nine inches. A measurement taken of Kartoum in December, 1930, showed an increase in height of a quarter of an inch in ten months, giving him a total height of ten feet, eight and one-half inches. This is within half an inch of Jumbo's height, but it is the

slowest rate of growth we have yet noted with Kartoum and possibly indicates that as an individual he has attained maximum size.

The usual work of revision of the nomenclature among the several hundred labels of the department, to conform to systematic changes, has steadily progressed. Also, the work of the staff of Keepers, both in the care of the animals in their respective buildings and ranges, and the men's courteous and helpful contact with visitors, has been very satisfactory. Complaints from visitors were practically nil and this is particularly gratifying, with the realization that close to three million visitors came to the Park during the year.

Bernard McEnroe is the second Keeper to be retired on pension from the Department of Mammals. He started service at the Park on the 18th of September, 1899, approximately two months before the Park was officially opened to the public, and retired at the age of sixty-five years.

Following is a census of the mammal collection taken on December 31, 1930:

Orders	*Species*	*Specimens*
Primates	37	100
Carnivora	49	117
Pinnipedia	2	3
Rodentia	14	49
Ungulata (Artiodactyla)	54	221
Ungulata (Perissodactyla)	13	24
Proboscidea	3	4
Edentata	3	6
Marsupialia	8	27
Monotremata	1	2
Total	184	553

DEPARTMENT OF BIRDS

LEE S. CRANDALL, *Curator;* WILLIAM BEEBE, *Honorary Curator;* SAMUEL STACEY, *Head Keeper*

The policy of this department, inaugurated several years ago, of attempting to maintain as large a number of species as our accommodations will allow, but a correspondingly small number of speci-

mens, has continued to give most satisfactory results. During 1930, the exhibits in the Large Bird House, particularly, showed an excellence of condition and a beauty of plumage that certainly has not been excelled in previous years.

Arrivals included a very fine pair of common rheas (*Rhea rothschildi*) and also a pair of Darwin rheas (*Petrocnemia pennata*). The latter represent a very interesting diminutive species, not previously represented in our collection. These arrived in February and have now become fully acclimatized.

Seven Galapagos hawks (*Buteo galapagoensis*), collected and presented by the Astor Galapagos Expedition, were received on May 2nd. The quiet, fearless nature of these handsome birds makes them particularly suitable for aviary life.

In September, Dr. and Mrs. Herbert S. Dickey presented us with a number of birds, collected during their recent explorations in the interior of Venezuela. These included the vary rare zigzag bittern (*Zebrilus undulatus*), two stone plovers (*Burhinus bistriatus vocifer*), two little olive guans (*Penelope marail*) and a lesser razor-billed curassow (*Mitu tomentosa*).

The bird of paradise collection was increased by the purchase of a Wallace's standard-wing (*Semioptera wallacei*), from the island of Batchian, in the Moluccas. We now have thirteen species of these lovely birds, all of which are in splendid condition.

The most important loss by death during the year was that of a kagu (*Rhinochetus jubatus*), a curious, crane-like bird from New Caledonia. It lived in the Large Bird House from August, 1914, to October, 1930, a period of over sixteen years.

Several important structural improvements were made in the department, including a brick shelter in the Goose Paddocks, and an entirely new Flying Cage, erected on the original site. Work on the cage was delayed beyond our expectations, but it was completed in time to allow most of the aquatic birds to enjoy it for several weeks in late summer and autumn. The pelicans were quartered on Cope Lake during alterations and were a great attraction to our visitors.

During the year, the Curator prepared an illustrated lecture on the Zoological Society's Expedition to New Guinea. This was presented

on a total of fifteen occasions, in most of the larger eastern cities, including Philadelphia, Pittsburgh, Chicago and New York.

SPECIES OF BIRDS NEW TO THE COLLECTION
Received During 1930

Darwin Rhea—*Petrocnemia pennata* (d'Orb.)
Mexican Tinamou—*Crypturus cinnamomeus mexicanus* Salvadori
Japanese Quail—*Coturnix coturnix japonica* T. & S.
European Water Rail—*Rallus aquaticus aquaticus* Linn.
Magellan Oyster-Catcher—*Haematopus leucopus* Garnot
Zigzag Bittern—*Zebrilus undulatus* (Gmel.)
White-winged Barn Owl—*Tyto alba furcata* (Temm.)
White-eared Coly—*Colius striatus leucotis* Rupp.
Lettered Aracari Toucan—*Pteroglossus inscriptus* Swains.
Golden-breasted Cotinga—*Euchlornis aureipectus* (Lafr.)
Rufous Jay-Thrush—*Dryonastes poecilorhyncha berthemyi* (Dav. & Oust.)
White-browed Bush Robin—*Ianthia indica* (Vieill.)
Cinnamon-rumped Seedeater—*Sporophila torqueola* (Bonap.)
Black-throated Sparrow—*Amphispiza bilineata bilineata* (Cass.)
Mexican Spotted Towhee—*Pipilo maculatus maculatus* Swains.
Green-crowned Calliste—*Tanagrella cyanomelaena* (Wied.)
Venezuelan Blue-throated Calliste—*Tangara cyaneicollis hannahiae* (Cass.)
Black-throated Silver-beaked Tanager—*Ramphocoelus nigrogularis* (Spix)
Greater Magpie Tanager—*Cissopis major* Cabanis
Yellow-rumped Blackbird—*Agelaius flavus* (Gmel.)
Gray-backed Bald Myna—*Sarcops calvus* (Linn.)
Wallace's Standard-winged Bird of Paradise—*Semioptera wallacei* (Gray)

CENSUS OF BIRD DEPARTMENT
January 1, 1931

Rheiformes,	Rheas	2	4
Struthioniformes,	Ostriches	1	3
Casuariiformes,	Cassowaries and Emus	1	9

Tinamiformes,	Tinamous	1	1
Galliformes,	Quail, Pheasants, etc.	59	119
Columbiformes,	Pigeons and Doves	46	132
Ralliformes,	Rails and Gallinules	11	15
Lariformes,	Gulls and Terns	8	31
Charadriiformes,	Plovers and Sandpipers	11	15
Gruiformes,	Cranes, Seriemas, etc.	15	26
Ardeiformes,	Ibises, Storks and Herons	25	57
Palamedeiformes,	Screamers	1	1
Anseriformes,	Swans, Geese and Ducks	46	284
Pelecaniformes,	Cormorants, Pelicans, etc.	11	18
Cathartidiformes,	New World Vultures	3	6
Accipitriformes,	Old World Vultures, Hawks and Eagles	26	44
Strigiformes,	Owls	11	24
Psittaciformes,	Parrots, etc.	87	196
Coraciiformes,	Kingfishers, Hornbills, etc.	14	15
Cuculiformes,	Cuckoos and Touracos	8	9
Scansoriformes,	Barbets and Toucans	10	14
Piciformes,	Woodpeckers	1	1
Passeriformes,	Perching Birds	344	737
		742	1,761

Summary: Orders, 23; Species, 742; Specimens, 1,761.

DEPARTMENT OF REPTILES

RAYMOND L. DITMARS, *Curator;* JOHN TOOMEY, *Head Keeper*

As a result of the Astor Expedition to the Galapagos Islands, the department received at the Park a fine exhibit of land iguanas from those islands. They arrived during the spring. There were ten large specimens and the entire series is thriving without a single loss. A number of tortoises were also brought back, in charge of Dr. Charles H. Townsend, who has been making a special study of the preservation of the giant tortoises, by establishing breeding colonies in southern portions of the United States.

Several rare and particularly interesting specimens were added to the collection by purchase. Among these were two large king cobras.



Upper: American prong-horned antelope (imm.). *Lower*: Vicunia.



Siberian ibex, male and female.



Indian sambar deer with antlers in velvet.



African galago; one of the lemuroids, and a representative of a genus of several species.



Upper: Brannick's giant rat. *Lower*: Banded armadillos. Both from the valley of the Amazon.



Five young polar bears, the gift of Col. Hayward and Mr. Plant.



Upper: African civet cat. *Lower*: The serval; also a small carnivora from Africa.



Babirusa; one of the wild swine whose habitat is Celebes and Bornea. The name is Malayan, meaning "pig-deer."



Galapagos hawk, *Buteo galapagoensis*. From the Astor Galapagos Expedition.



Darwin rhea, *Petrocnemoa pennata*, smallest and rarest of the rheas.



Upper: Galeated currasow, *Pauxi pauxi*. *Lower*: Zigzag bittern *Zebrilus undulatus*, the gift of Dr. and Mrs. H. S. Dickey.



European pelicans, *Pelecanus onocrotalus onocrotalus*.



Upper: A confiding white-breasted nuthatch, *Sitta carolinensis cookei*. *Lower*: Pied peachick, *Pavo cristatus* hatched in the Zoological Park.



Visiting black ducks, Anas rubripes, wintering on the Wild-fowl Pond.



Upper: Short-eared owl, *Asio flammeus flammeus*. *Lower*: Snowy owl *Nyctea nyctea*.



African white-necked stork, *Dissoura episcopus microscelis.*

One is in excess of fourteen feet in length, and appears to be the largest example of this spectacular creature that ever came to America. We have noted but one other authoritative measurement among the records for growth of this species which eclipses that of the one now on exhibition. Three huge Gaboon vipers were added to the collection, two very beautiful green tree boas, and a Surinam toad.

The Curator has been making a series of experiments with powerful bulb lights, in a test of their effect upon the larger tropical lizards during the weak sunlight period of winter. Results appear to have been beneficial to the iguanas, which flock to the lamps and bask as if in sunshine. The winter and early spring period will be required to complete the test, to note if a certain deterioration usually noted during the indoor period, has been arrested among such specimens.

Another extensive *Bulletin*, this time elucidating in text and illustration "The Poisonous Serpents of the New World," was prepared by the Curator. This number resulted in an extensive call for copies, of which a large percentage went to the tropical American countries.

During the spring, the Curator was invited to attend the commencement exercises of Lincoln Memorial University, at Cumberland Gap, Tennessee. He accompanied his friend, Dr. Adolph Monaelesser, with whom he has been associated in research work with snake venoms, in the separation and attenuation of toxic elements for bio-chemical experiments. The Curator was tendered an honorary degree of Doctor of Literature. Dr. Monaelesser received an honorary degree of Doctor of Science.

A census of the reptile collection, taken at the close of the year, follows:

	Species	*Specimens*
Class Reptilia:		
Crocodiles and Alligators (Loricata)	4	28
Serpents and Lizards (Sauria)	54	200
Turtles and Tortoises (Chelonia)	16	123
Class Amphibia:		
Frogs and Toads (Salientia)	8	41
Newts and Congo Snakes (Caudata)	2	9
Total	84	401

A condensed census of the animals in the Zoological Park, taken December 31, 1930, is as follows:

	Species	*Specimens*
Mammals	184	553
Birds	742	1,761
Reptiles	84	401
Total	1,010	2,715

REPORT OF THE VETERINARIAN

Charles V. Noback

The animal collection has been maintained in an excellent condition and in a state of good health during the past year. Through the application of the principles of feeding the dietary requirements of the various species have been fulfilled, with the result that there have been no losses from "deficiency diseases." Observation of all new animals while in quarantine served to prevent the possible introduction of infectious or contagious diseases. A few cases of distemper in some small carnivores were observed during quarantine. These animals were promptly isolated and attended to.

Infectious Diseases.—There has been no outbreak of an infectious or contagious disease among the mammals, due to the precautionary measures of quarantine, together with thorough cleansing and disinfection of all animal cages and enclosures. Three kangaroos were lost on account of a necrotic alveolar periostitis.

Parasitic Diseases.—A number of recent accessions among the small mammals were found to have been heavily infested with intestinal parasites. One skunk, four coati mundis, two spotted cavies and one golden agouti were infested with stomach worms (Physaloptera). These cases did not respond to treatment with Santonin.

The survey of the mammals for the presence of nematode eggs in their excreta has been completed by Mr. G. W. McClure, graduate student of the Biology Department of New York University. Nematode eggs were found by means of a salt flotation method with centrifugalization.

Old Age.—Among the specimens which died as the result of degenerative diseases of old age, the following are mentioned: Silver King, the polar bear which had been at the Park for over twenty years. It is worth noting that 169 ascarid worms were found in the intestines with no indications of an enteritis. These parasites were referred to Mr. McClure for study and identification. The female Russian brown bear Cache, which lived in the Zoological Park for twenty-nine years; a buffalo (bison) cow at the Park for fifteen years; a Grevy zebra mare on exhibition for more than seventeen years, and a male musk-ox which had been at the Park for nine years, were other specimens which died of old age.

Accidents.—Two important specimens were lost on account of accidents—the Kiang stallion from a fatal injury of one of his hind legs, and a male eland which suffered from a comminuted fracture of the head of the femur.

Cooperation with scientific institutions has been carried on during the year. Tissues have been sent to Dr. Karl Landsteiner at the Rockefeller Institute as material for study in the identification of species by means of precipitation tests.

The young female gorilla, Janet Penserosa, at the Hospital in the Park is in good condition and continues to grow and develop. She has been at the Park over two years and weighs fifty-five pounds at the present writing.

CORRECTION

On pages 44-45 of the 33rd Annual Report (1928) and on pages 50-51 of the 34th (1929) Annual Report of the New York Zoological Society the young gorilla has been erroneously referred to as a male. It is a female and is known as Janet Penserosa.

STUDIES CARRIED ON AT THE HOSPITAL LABORATORY

1. Study of Bone Development in the Budding Antler of the American Wapiti. C. V. Noback and W. Modell.

2. Growth of Infant Female Gorilla. American Journal of Physical Anthropology. Vol. 14, No. 2. April-June 1930. pp. 165-176. C. V. Noback.

Presented at the meeting of the American Association of Physical Anthropologists, University of Virginia, Charlottesville, Va., April 18, 1930.

3. Digital Epiphyses and Carpal Bones in the Growing Infant Female Gorilla, with Sitting Height, Weight and Estimated Age. Zoologica, Vol. XI, No. 5. Dec. 1930.

Presented at the meeting of the American Association of Physical Anthropologists and the American Association for the Advancement of Science, Western Reserve University, Cleveland, Ohio, December 30, 1930.

DEPARTMENT OF ADMINISTRATION

H. R. Mitchell, *Manager;* William Mitchell, *Cashier*

The City Budget for 1930 granted $335,784 for the maintenance of the Zoological Park for the year, to which there was added a salary increase of $100 each for 125 positions, or $12,500 annually. This salary increase became effective as of March 1, increasing the year's appropriation by $10,416.67. On May 16 an item of $3,790.25 was allowed us for Repairs and Replacements of the water supply system, making a total City appropriation of $350,170.92. The Zoological Society authorized the expenditure of $65,260 for maintenance from their own funds, making the total amount available for the maintenance of the Park for 1930, $415,430.92. Expenditures exceeded this combined budget by $340.39, which amount was paid by the Society. The fact that the City Budget was granted as a one-line appropriation under a single code was of material aid in distributing expenditures to the benefit of the institution. Work under contract for the new Flying Cage was carried on during the current year against the appropriation granted late in 1929. An extra item of work was necessary amounting to $425.60 for which no funds were available and the amount was paid from the Zoological Society's funds. The appropriation included in the 1930 Budget for Special Repairs & Replacements was used in continuing the replacement of boundary and range fences, the addition of one oil burner, and the purchase of a gasolene road roller to replace the steam roller which had been in service for nearly thirty years and had long since become obsolete.

The work of this office was somewhat increased by the semi-weekly payrolls for the force of men sent to us by the Emergency Work Bureau of the Association for Improving the Condition of the Poor. About 250 men were used for three days a week at $5 per day, operating in two shifts of 125 each. This work, however, was handled without any increase in the office force.

Accounts: Before printing the Treasurer's Report for the year 1929 in the Annual Report of the Society, the Treasurer, Mr. Agnew, decided to have a balance sheet added covering the assets and liabilities of the Society. This practice will be continued in future reports. The only other matters worthy of note in connection with Accounts was the establishment of the Alma C. Damon Endowment Account, the income to be used for the maintenance of a special Aquarium exhibit. This bequest of $10,000 was provided by the Will of Alma C. Damon. There was also created by action of the Executive Committee a Revolving Publication Account to cover the cost of certain publications contemplated in the near future. The sum of $5,000 was transferred to this account from the General Income Fund. The method used last year of separating the expedition expenses from those of the regular Tropical Research staff expense was continued again this year and will appear in this manner in the Treasurer's Reports. Our accounts have received a quarterly audit by the firm of Peat, Marwick, Mitchell & Co. and their certificate of audit, as well as the report of the Auditing Committee of the Society, appears in the Annual Report following the Treasurer's Report.

Attendance: The attendance at the Park was 2,923,192, the largest number for any year since the Park was opened. The increase over the previous year was, however, only a little over one per cent. The largest daily attendance record was broken on Sunday, May 4, when the number of visitors reached a total of 82,600, the largest previous day's attending being 75,802, June 15, 1924. Attendance since the Park opened now totals approximately fifty-seven millions.

Purchase and Sale of Animals: On Jan. 1, 1930, there was a balance of $28,366.31 in the Animal Account, and $2,839.88 income, in the Cadwallader Animal Endowment Account, making a total of $31,206.19 available for animal purchases during the year. The requirements were below the normal figures, the total expenditures being

$17,492.92. Receipts from the sale of animals were only $595, and total receipts for the year $20,673.72 in the Animal Account and $1,000 in the Cadwallader Animal Endowment Account, or $4,180.80 in excess of expenditures. The total available for expenditure for this purpose in 1931 is $35,386.99, more than double the amount expended in 1930 and ample for any emergency.

Privileges: While the Park attendance showed a slight increase, combined Privilege receipts decreased somewhat owing to the general unfavorable conditions that prevailed throughout the year. A period of extreme hot weather in mid-season, also, had its effect on the result, the months of June, July and August, the important months in the season, showing a falling off in attendance as compared to the previous year. Notwithstanding our best efforts, the net results on the combined Privilege operations were about 20 per cent below the year 1929. Our rather extensive program of improvements for 1930 was carried on without regard to the prevailing conditions and much was accomplished to put our plant and equipment into such shape as to render better service with added economy. Many further improvements yet remain to be done, and at this writing plans are going forward to continue this general betterment in 1931.

Steps and Balustrade at Refreshment Pavilion: Delay in the final approval of plans for the steps and balustrade at the Refreshment Pavilion made it impossible to carry this work on as early in the season as desired. The contract was given out on April 12, which carried the work into the busy part of the season, interfering somewhat with access to the Pavilion from the Parking Space and resulting in some reduction in the volume of business, which, however, under the circumstances, was inevitable. We were fortunate in being able to give the cast stone work on the steps and balustrade to the Benedict Stone Corporation, the same firm who supplied the stone for the building, and an excellent duplicate of the original was secured. A careful job of stone-setting by the contractor gave us a very satisfactory result. We are glad to have this work completed, as it carries out the original plan and improves the appearance of the east elevation of the building as seen from the Boston Road. Suitable planting now remains to be done to give the building a proper setting and it is hoped this work can be carried on during the coming year. With the work of building the

steps it was necessary to carry on some unfinished details of the Parking Space, including smoothing up and rolling the entire surface, completing grading at the south end and constructing coping and fence on the southern boundary, as well as the building of branch walks leading to the Comfort Station, all of which was done with our own force of men.

Parking Space: The operation of the Buffalo Entrance Parking Space was at capacity on Sundays and holidays during the busy part of the season, causing some anxiety as to the possibility of making extensions to parking facilities. As an experiment it was decided to make a further space available for parking on Sundays and holidays. The only possible area within the Park that it seemed could be utilized for this purpose was the open field lying near Pelham Parkway and south and west of the Old Bronxdale Road which forms the boundary of the Park at this point. This ground is a considerable distance from any entrance to the Park and parking there entails a long walk to reach the Park collections, but notwithstanding this inconvenience it was used by a large number of visitors arriving by automobile. Receipts from the parking privilege made a gain of about 12 per cent over last year. An inspection of streets surrounding the Park will show a very large number of cars parked on Sundays and holidays during the summer in violation of police regulations. Inquiry into plans for increasing parking facilities at parks elsewhere shows in many cases improvements are under way which will double present capacity. There is no doubt of the necessity for the further extension of parking space for the accommodation of Zoological Park visitors, to be made available at an early date. We believe the question should have the earnest consideration of the Director and officials of the Society. Based upon experiments carried on during the season at the new location referred to, we recommend its development as a parking space with a nominal charge for parking, provided some plan is worked out that will make comparatively easy access and shorten the distance to the principal Park buildings by means of a foot bridge across the Bronx River at some point near the location described. If the distance to Park collections cannot be shortened in this way we believe it would be undesirable to develop this parking space, since the distance that visitors would have to walk to reach the collections would be entirely too great.

Rocking Stone Restaurant: There was a considerable reduction in gross business at the Restaurant, we believe almost entirely due to general conditions prevailing during the year. The net results were further unfavorably affected by two months' absence on vacation of our regular chef who has served us for the past eight years. Many improvements planned for the Restaurant during the year were carried on, important among which were a new built-in service ice box in an annex adjoining the kitchen, with automatic refrigerating machine operation; construction of a thoroughly modern women's room on the second floor, and the complete refinishing of the inside dining room. All of these improvements were very much needed. The work was all carried on in a thoroughly substantial and permanent manner and will enable us to add much to the class of service we will be able to render to Park visitors. As an example of the economy effected by the use of the automatic refrigeration installation, for the nine months of the year this machine was in operation, there was a saving of more than $200 over the cost of ice for the same period last year, not considering the saving in food supplies due to proper temperatures or the great convenience of mechanical refrigeration. Toward the close of the year the old lunchroom downstairs was fitted up for serving a hot mid-day meal to the large force of men sent to us and paid by the Emergency Work Bureau of the Association for Improving the Condition of the Poor. About 125 men are being served daily at the expense of the Zoological Society. Among important plans for further improvement at the Restaurant in 1931 are a complete renovation of the kitchen, including the substitution of gas ranges for the present coal ranges, and modernizing of the men's room with fixtures, tiled floor, etc., both of which improvements have been long deferred.

Boating: The boating privilege made an excellent showing for the season. Although the gross receipts and profits were somewhat below the previous year, they did not show as much recession as in some other privileges. The last electric launch of our fleet was disposed of before the season opened, and operations on the lake are now confined entirely to rowboats. Every boat has been carefully repaired and painted since the close of the boating season, 25 new boats were received early this year, and 25 have been ordered for delivery at the opening of the next season. The handling of this privilege this season



Spiny swift, a representative species of an extensive genus of lizards inhabiting southerly United States from coast to coast.



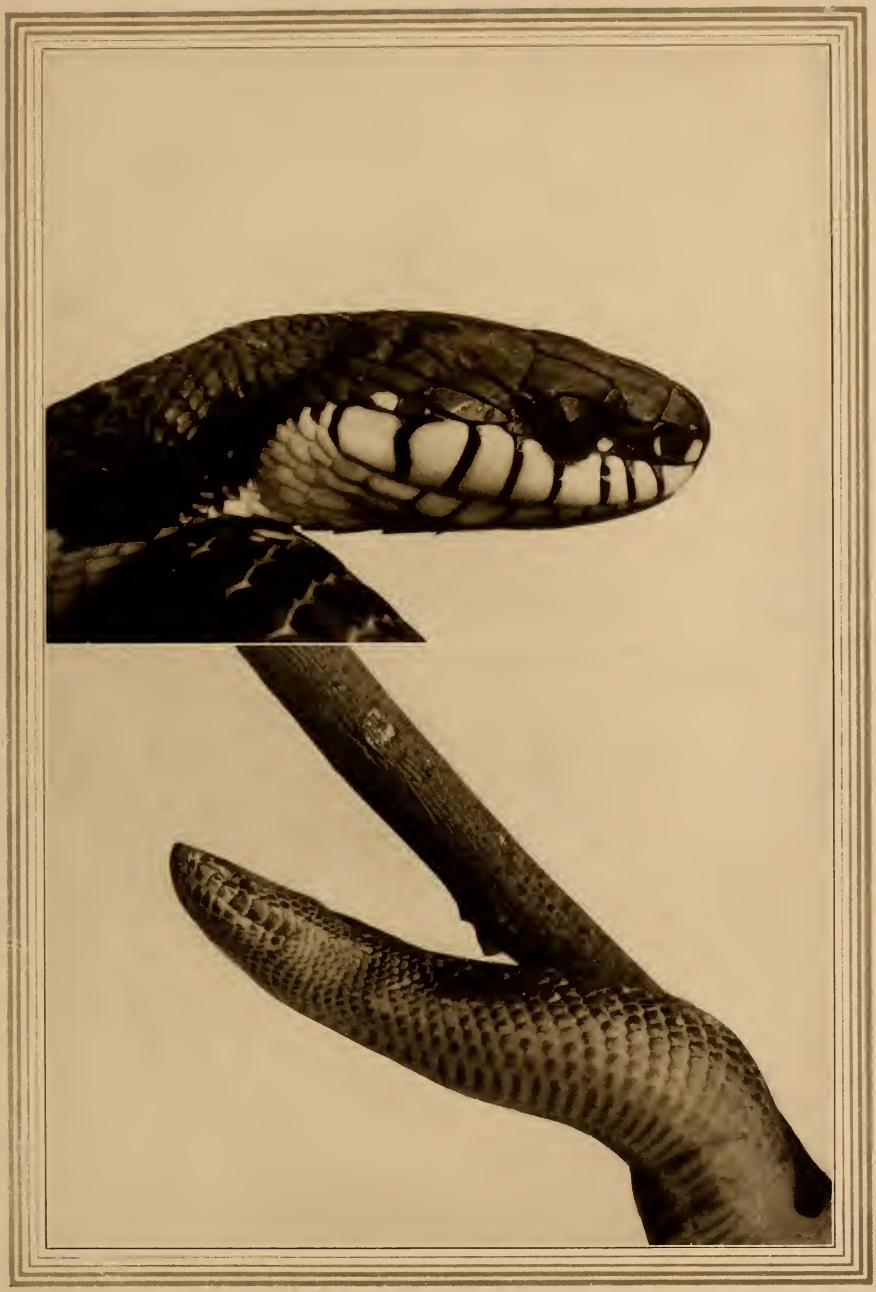
A tropical tree toad from the valley of the Amazon.



Surinam toad; from the Amazon valley. A strictly aquatic species which never leaves the water.



Mangrove snake from the Malay Peninsula.



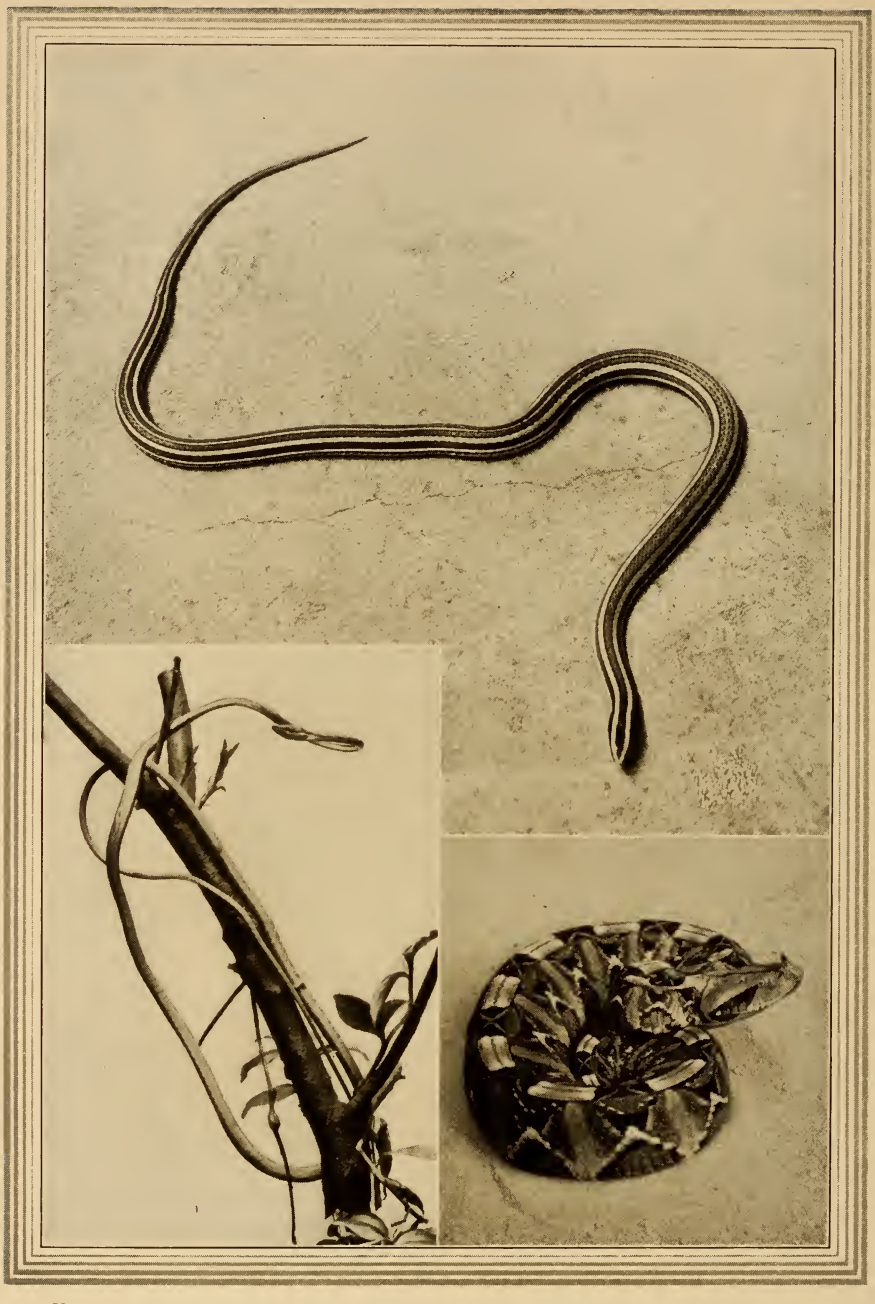
Upper: Head of the mangrove snake. *Lower*: Pygmy python from tropical Mexico.



Green tree-boa, *Boa canina*, from northern Brazil.



Loxocemus bicolor, a pigmy python from tropical Mexico. This is a very rare snake; barely a dozen specimens are in the museums of the world.



Upper: "Guarda camina," a mildly poisonous snake of Honduras. *Left*: Vine snake from Honduras. Gaboon viper from Tropical Africa.

was in charge of the same Foreman who has operated it for several years with increasing satisfaction. A number of extra men employed for the day only are required on Sundays and holidays. These men have been supplied with suitable light uniforms which are given a regular laundry service, and this arrangement has greatly improved the appearance of the force. Our constant aim is a better handling of this service and the maintenance of our long record of no serious accidents, despite the large proportion of patrons who are more or less unfamiliar with the handling of rowboats. The life-saving force on the Lake has been for the past several years in the hands of August Schur who is an expert in first aid treatment.

Boat House Restaurant: The Restaurant feature at the Boat House was re-opened for the season about the 15th of April and continued until November 30th. Operation was in immediate charge of Mr. and Mrs. Eirman, Mr. Eirman as Chef and his wife in charge of the dining service, with very satisfactory results. Except due to general conditions and parking arrangements at the Boat House, the volume of business was not as great as expected. There was, however, a slight gain in gross receipts. Before opening for the season we made numerous alterations, very largely with our own force, with the aid of some A. I. C. P. men assigned to the department. The kitchen was moved upstairs to the former service room, gas ranges, automatic refrigeration, and other improvements installed. The former lunchroom was remodelled and converted into an attractive Tea Room, and both the Dining Balcony and Dining Room were further improved in appearance. While net results were not what we hoped for, we feel that a greatly improved service was rendered, many friends were made, and the foundation laid for further progress. An important necessity to continued improvement is better parking arrangements and a traffic light at or near the cross-walk, which will permit Park visitors crossing Boston Road at this point to reach the Boat House in comparative safety.

Soda Water: The soda water division of the Privilege Department is affected by weather conditions more than any other branch of the business. Unseasonable weather during any part of the three mid-season months cuts down the volume of the business at a time when overhead and operating costs cannot be correspondingly reduced. We had to meet such conditions during 1930, which reduced our net show-

ing for the year. Some progress was made in the way of improvements in service at several of the refreshment stands, notably the addition of several Still filter coffee making machines.

Gate Receipts: Paid admissions at the gates in 1930 reached a total of $20,523.15, about $500 above the previous year. As usual the entire receipts were remitted to Improvement & Repair Account, which sum, added to that portion of the unexpended balance of $1,145.63, made a total of $21,668.78 available for the 1930 program. A budget for the year, aggregating $21,000, was approved by the Executive Committee. The expenditures against this Budget were $20,834.91. Based on estimated gate receipts for 1931, a budget of $20,500 is being submitted for consideration by the Executive Committee. Attention is called to the unexpended balances in appropriations still remaining in the Improvement & Repair Account on which no further expenditures are contemplated, as follows:

Vita Glass	$ 797.43
Primate House	2,524.64
Small Mammal House	2,607.04
	$5,929.11

Some provision should be made for closing these items, either by transfer or rescinding the amounts, making them available for appropriation for other purposes.

Guide Book: A new edition of the Guide Book was required early in the year. Delivery was made about April 1st. With the over-run, the edition ran to 27,000 copies. By the close of the year the stock had been very substantially reduced. While sales were not equal to the previous year, they were, considering all conditions, quite satisfactory.

Miscellaneous Publications: Under this heading during the past year it was necessary to issue new editions of the souvenir postal cards, Pets and How to Care for Them, and Animals in Art Stamps albums. Of the latter 10,000 were printed, and 2,000 copies of the Pet book, and a total issue of about 1,500,000 postals. Some revision was made in the postal card series, about a half dozen obsolete subjects were discarded and the same number of new subjects added, for which it was

necessary to provide new plates at considerable expense. Delivery of this issue was made just before the close of the year. Sales of all the items of the miscellaneous publications showed a reduction as compared with 1929.

Riding Animals: In this division of the Privileges there was a decrease of about 8½ per cent in the gross business and a little over 20 per cent in net profits. The larger part of the receipts in this section is on Sundays and holidays, and in order to be ready to take proper care of the business a certain force of extra help must be provided. A large increase in volume of business can be done without materially increasing the cost of overhead and extra help. We were so unfortunate as to lose our last riding camel during the last season. This animal was not replaced as a suitable one was not available. We are continuing improvements on our stable and riding animal equipment. Extra boys employed are given careful training in the details of their work, and we feel a decided improvement has been made in the personnel used in this operation.

Baby Carriages: This equipment receives a complete overhauling and painting at the close of each season at the hands of our own force. The repair cost in this class of equipment is very heavy, but we feel it is an important service to those visitors requiring it and should be rendered without regard to the results so far as operating profits are concerned.

DEPARTMENT OF FORESTRY AND CONSTRUCTION

CHARLES J. RENNER, *Chief Constructor & Engineer;* FRED W. MINGST, *Assistant Constructor;* MICHAEL E. O'KEEFE, *Assistant Forester;* GEORGE SKENE, *Head Gardener*

The general maintenance work about the Park was carried on as usual. Most of it is of such nature that it must be attended to constantly and periodically and so long as this is done those things dependent upon it move along smoothly. The balance may be defined as replacements and new work.

By virtue of assistance given to the Park by the Emergency Work Bureau in furnishing men, and the efficiency of the regular Park force in assimilating and directing them, somewhat more work than usual was accomplished this year to the benefit and general appearance of

the Park. The foremen are to be commended, for each department produced an extra and complete job. The office force also did well, for with several hundred extra men and two extra pay-rolls a week, they were often working under strain.

The maintenance work, which customarily consists of the tasks of hauling, heating, policing, removal of wastes, repairs to buildings, fences, walks, trees, shrubs and general maintenance, more generally included the following:

Fences: New fence wire was placed on the fences and partitions at the Hog Deer, Elk and Red Deer ranges, at the Llama, Ostrich, Yak and Musk-ox corrals, and along the north sides of the Lake Agassiz and Nursery enclosures; in all, about thirty-six hundred feet. In addition to this the Engineering Department prepared and supervised the contract construction of new range fences for the Wild Horse and Antelope ranges consisting of thirty-five hundred forty-seven feet, together with twenty-eight large gates, and new boundary fences along the Boulevard from the Service Gate to Fordham Entrance, along the Pelham Parkway from the Bronx River to Butler Street, and along the east side of the Wild Fowl Preserve, consisting of twenty-eight hundred ninety-six feet.

Cages: In the Reptile House the cages along the east side and several along the north side were reconstructed and equipped with concrete floors and iron doors to make them fire and vermin proof. New wire fronts were put on the Birds of Paradise cages at the north end of the Large Bird House, and also on the lower portion of the cages in the Lion House. The Eagles' Aviaries were made over and renovated. One large cage of the upper level Bear Dens had new piping, a new tank and a new concrete floor installed, while at the lower level a new cage entire was constructed and joined to the large one existing there already, to accommodate several young polar bears. A set of temporary cages were constructed within the Aquatic Bird House cellar to replace some dismantled in Dr. Beebe's laboratory.

Walks: Tar patching was done as usual throughout the Park and new tar surfacing was applied to the North, West and South Elephant Walks, and to the West Mammal Walk and vicinity of Soda Stand No. 2; in all about thirty-seven hundred square yards. Two new telford

walks were constructed, one at the exit of the Service Yard and one at the Bronxdale Bridge.

Painting: Nearly every fence in the Park was painted this year, as well as the iron work of all the outside cages. Other outside painting consisted of renovating the Totem House and Pole, the Service Building, the Deer Barns, and the window and door frames of all other buildings, while inside work consisted of doing the Nursery living quarters, all the gate houses, the Service Building, Large Bird House, Aquatic Bird House, Ostrich House and the three comfort stations, as well as numerous small jobs.

General Work: A new Duck Aviary was built of brown bricks and cut stone, for which the surrounding locality was regraded and supplied with a new system of paved channels, by means of which clean running water is regularly supplied to the birds of the adjoining enclosures. The work was quite extensive. An iron haystack rack was erected at the Nursery, with roads leading to the same. At the Ostrich House a set of covered Macaw stands were made. In conjunction with the Privilege Department, a wall, fence, drainage system and several walks were constructed at the south end of the Parking Space. In the beginning of the year the foundation for a large twenty-ton scale was constructed, upon which later the scale was set.

Carpenter Work: New entrance doors were made and placed on the Small Deer House, new storm doors on the Large Bird House and new sliding doors on the officers' garage. A large shifting cage was built for bear dens and fifteen portable cages were made for the Reptile House. The Totem House was reroofed. The Elk House, Laboratory Shelter House and Service Storeroom roofs were reshingled. New floors were built in the five north bear dens and considerable shelving was constructed in the basement of the Administration Building. In addition the carpenters did a vast number of other smaller jobs which is the usual condition.

Boilers: Five new boilers were installed. This is more than last year and is due to the fact that some of them are getting old. They were placed in the Hospital, Reptile, Large Bird, Ostrich and Nursery buildings, and two are now in use in conjunction with new oil burners. The oil burners, which were installed in the Reptile, Primate and

Large Bird Houses, all seem to be satisfactory so far. They are a great relief to the firemen and a great benefit to the Park since they permit more time for watching.

Plumbing: The Boston Road Comfort Station was remodeled and transformed into a modern affair. The changes add to the appearance and sanitation of the building besides increasing the accommodations of the station. The whole task was well done and the plumbers were able to carry the work on while attending to their other and regular tasks. They also connected up the Rocking Stone Restaurant, Small Deer, Ostrich & Mammal, Primate and Lion houses, Upper and Lower Bear Dens, Concourse Fountain and Parking Space, working with the Water Department. These jobs made necessary considerable trench work. The Mammal & Ostrich House and the Small Deer House were repiped all brass, by contract. The work was under the supervision of the Park plumber and in accordance with the plans of the Engineering Department.

Gardening: The flower beds were planted with pansies in the Spring and later with salvia and cannas in variety. The shrubbery was pruned more extensively than usual, with all the dead wood throughout the entire border planting trimmed out. Approximately seventy-five acres of woodland east of the Bronx River were cleared of cat-brier and brush, with over one-half of the trees in the area pruned, as well as many of the trees in the enclosed section of the Park. Other trees which were decayed and dead were removed. About a mile of the water pipe trench which was dug last year was spaded, top-dressed, graded and seeded, while a number of overgrown spots were cleaned out, seeded and planted with young shrubbery similar to what was there before. Several hundred rhododendrons, laurels, evergreens and flowering shrubs were purchased and planted at these places. Two large boxwoods and twenty Japanese maple trees were transplanted away from the Reptile House and ten large trees were changed from the woods to ranges where they were needed. Special iron guards were made for their protection. Sixty young trees were set out at the Nursery for future use, while fifty trees were taken from there and planted on the west bank of the Bronx River. About one thousand young pachysandra plants were planted as ground cover in various

parts of the Park and the propagation of ivy cuttings was started in the greenhouses for the same purpose. In the Fall nearly all the Park leaves were gathered, carted and placed in a compost heap. Throughout the year all available manure was piled and turned and about one hundred loads were used to mulch the trees, shrubs and lawns. These things were made possible because of better carting facilities than usual.

The department wishes to acknowledge its thanks to the Bronx Park Department and the Board of Estimate, especially to those engineers who check our work, who have been very fair to us. We trust they are gratified to see the improvements they helped to bring about.

DEPARTMENT OF EDUCATIONAL ACTIVITIES

CLAUDE W. LEISTER, *Curator*

As noted in the report of the Director for last year, one of the chief aims of this department will be to assist teachers, students and others, in their studies of animal life in the Park. It has also been deemed advisable for the department to publish or to make available from time to time, material which will aid the study of Natural History. During the first year of its existence the department has been actively engaged in carrying out projects which, it is believed, will accomplish the desired results.

As heretofore, a record has been kept of all school groups, Boy Scout, nature and other organizations that have visited the Park during the year. The number of groups accounted for during 1930 was 785, comprising a total of 31,233 children. Of these, 456 groups, totalling 18,559 children, came from New York City. This marked a slight decrease in the number of school groups visiting the Park from New York City and a decided increase in the number of out-of-town groups over that recorded for last year. It was believed that the relations established by this department with city schools would help to increase the number of classes visiting the Park, but while such contacts did bring certain groups to the Park, other factors cut down the total attendance. In this connection it may be mentioned that transportation difficulties play an important part in limiting school attendance from the more rapidly growing sections of New York City. One school from

Queens managed to consume three hours and a half in their journey to the Park. A Brooklyn school required approximately the same time.

Early in the year a modified form of docent service was offered to school groups from New York City. This service aims to give an intimate contact with some of the more important animal types, rather than a personally conducted tour of the Park. During the spring and fall 57 school groups availed themselves of this service and many teachers have expressed their thanks for the aid received.

It is well known that the Society has a remarkable collection of animal photographs that have been taken in the Zoological Park. These photographs have never been generally available for school use and it has been the pleasure of this department to offer a considerable number of them in the form of lantern slides that may be used free of charge by New York City schools.

During the summer vacation months four sets of lantern slides were prepared for use: "North American Mammals," "African Mammals," "Strange Mammals from Foreign Lands" and "Birds of New York City and Vicinity." Each set contains approximately forty correctly colored slides. An informative account of the included animals was prepared for each of the above sets and copies were printed to accompany outgoing slides, to be read or used in any way seen fit by the teacher or person using them. It was decided to adopt the parcel post as a means of transporting slides to and from the various schools requesting their use. A successful shipping box was designed to carry the slides and delivery has been accomplished at a low cost and with a negligible amount of breakage. From October 15, when the slides were first announced, to the end of the year, they were seen by 6,391 children. Many interesting comments have been received from teachers using these animal photographs and it is apparent that they are being used with good effect.

As mentioned in last year's report, the Society's excellent series of motion pictures on "Living Natural History" has never been used by schools to any great extent. This of course has been due to the difficulties encountered in complying with restrictions concerning the transportation and use of standard motion picture films. Many schools are now using 16 mm. amateur size film, and with the development of

satisfactory projection apparatus, the narrow film has found considerable use in the class room. Because of the many requests for 16 mm. subjects that we receive during the course of a year, it was decided to produce one film in this width and offer it for school use, letting cost of production and wear and tear indicate if additional subjects can profitably be made in the future. Up to the end of December this film, entitled "Birds Through the Year" (for which many scenes were taken in the Zoological Park), was seen by 4,418 school children.

A descriptive catalog of our visual instruction aids, similar in form to the Society's "List of Publications," has been prepared and copies have been sent to all school principals in New York City. It includes all of the above mentioned slides and motion pictures.

During the year four radio talks were given concerning the administrative details involved in operating the Zoological Park and mention was made of the many rare and interesting animals in the Park collections. With other Park departments cooperating, a series of five talks were given over the municipal radio station WNYC. In the spring, a special broadcast was arranged with WEAF and a chain of stations in which some of our animal voices were sent out over the air, direct from the Park, in a children's program. That was the first time such a program had been given in this country.

It is considered that talks and lectures given by members of the Park staff present a most important method of disseminating knowledge and information concerning our zoological collections. In this connection nine talks have been given during the year before schools and other organizations. Most of these talks have been illustrated with slides or motion pictures and all of them have been well received.

In an effort to help teachers and students with their studies of animal life, the Curator has prepared a book entitled "Present Day Mammals." This is a briefly written, systematic treatise intended for the beginner rather than the advanced student of mammals. It is illustrated with over a hundred mammal photographs, almost all of which were taken in the Park. It strives to answer the questions: What is it? What does it look like? To what is it related? From where does it come? and, to a certain extent, What are its habits? This book is now in press.

DEPARTMENT OF PUBLICATION AND PHOTOGRAPHY

ELWIN R. SANBORN, *Editor and Photographer;* ANNIE R. NEWMAN, *Assistant;* EDWARD R. OSTERNDORFF, *Assistant Photographer*

Photography: The work in the photographic section of this department has been carried on in a more systematic manner and many valuable records have been made and filed with the collections. It is necessary to make the effort in such work most persistent as the conditions are so varied and inelastic. They must be met as they exist and the problem solved by intense application and study. As this work applies more directly to the publications of the Society, we try to work in a manner that will make the photographs adaptable to the illustration of the periodicals and books that the Society issues.

During the past year an interesting invention has been perfected, by a German scientist, a nationality forever in the foremost ranks of the field of ingenuity. This invention is a substitute for the old form of flashlight. It is a bulb similar to those used in electric lighting lamps, about the size of a 75 watt lamp, containing a very thin, rumpled sheet of aluminum foil, and instead of the usual vacuum, the bulb is filled with oxygen. For the filament ordinarily used as a lighting medium in steadily burning lamps, there is substituted a small piece of fusible metal across the poles. When the current is switched on, the foil burns in the presence of the oxygen, producing a light as vivid as a flash of lightning. There is no sound, and of course no smoke. The light is so rapid and the interval of illumination so brief that rapid motion may be arrested with the same degree of certainty as an exposure under the most natural lighting conditions.

As a substitute for explosive flash powders it is most valuable, as numerous horrible accidents have occurred from premature and unexpected ignition of various forms of powder, which, if they did not instantly kill the operator, often made disfiguring scars and caused long periods of intense suffering.

Some of the more important records are included in the following list: Mammals: gorilla; chimpanzee; Barbary lions; snow leopards; Indian leopard; Bengal tiger; puma; serval; African civet; ratel; small-eared dog; polar bear; Alaskan brown bear; American black bear; hairy-eared bear; California sea-lion; Malay and Indian sambar

deer; American wapiti; white-tailed deer; Chapman zebra; American bison; alpaca; guanaco; tahr; Siberian ibex; African and Indian elephants; echidna; babirusa; Brazilian armadillo and hutia. Birds: Martial eagle; Andean condor; Galapagos hawk; snowy owl; milky eagle owl; Pacific horned owl; Virginia horned owl; giant eagle owl; horned owl and Savegny eagle owl; galeated curassow; Australian stone plover; golden conure; wattled starling; zigzag bittern; North African ostrich; Jobi cassowary; Darwin rhea; maguari stork; red-crested cockatoo; blue-footed booby; American white pelicans; black duck; turkey and mute swans. Reptiles: Indian cobra; king cobra; anaconda; karung; tree boa; mangrove snake; conolophus and Surinam toad, comprising forty-three genera and seventy-nine species. Photographic aid was given to the engineer in construction work, in recording accidents from falling trees, damage to buildings and corrals, and in locating new projects.

The department continues to be the source for obtaining photographs for an increasing number of artists and publishers, and the occasions are very rare wherein we cannot supply exactly what is needed.

Bulletin: All of the issues of the Bulletin for the year 1930 were interesting, of unusual value and voluminous. Dr. Townsend contributed two numbers, Twentieth Century Whaling, and set forth in another number the account of his last trip to the Galapagos Islands, with the Astor Galapagos Expedition. It was illustrated copiously by members of his party, and included an account by Kermit Roosevelt of the attempt made to get to the crater in the interior of Indefatigable. Mr. Crandall, Curator of Birds in the Zoological Park, prepared a number on the Owls. Dr. Beebe divided between two numbers the events of his latest work at Bermuda, and Dr. Ditmars prepared a very attractive paper "The Venomous Serpents of the New World," illustrated with photographs made in the field and from the collections of the Society made in the Zoological Park. The Bulletin for 1930 made an aggregate of 264 pages, with 278 illustrations. There has been a demand for the Bulletin which has been constant, and it is most gratifying to the Society that this periodical finds its way into the most distant foreign countries all over the world.

Zoologica: Five papers were contributed to Zoologica in 1930 and are herewith listed: Vol. XI, No. 3, Direct Bone Formation in the Antler Tines of Two American Cervidae: Virginia Deer and American Wapiti, 42 pages, 56 figures, by Charles V. Noback and Walter Modell; Vol. XI, No. 4, A List of Antillean Reptiles and Amphibians, 56 pages, by Thomas Barbour; Vol. XI, No. 5, Digital Epiphyses and Carpal Bones in the Growing Infant Female Gorilla, 36 pages, 16 figures, by Charles V. Noback; Vol. XII, No. 3, Notostomus Beebei, 6 pages, 1 figure, by Lee Boone, and Vol. XII, No. 4, New Decapod and Isopod Crustaceans from Gonave Bay, Haiti, 14 pages, 4 figures, by Lee Boone.

Two others were in process of production at the close of the year, one of which was completed later, and the other one delayed intentionally because of depletion of funds at that time.

Mailing: We still experience some difficulty in getting direct mail deliveries because of lack of sufficient information by removals of residence. Second class mail is not forwardable and when it is returned it is necessary to send out a form letter under a two-cent stamp in order to trace the destination of a faulty address. We have two forms, one which requests the correct address, and another which asks a verification of a destination which has been taken from records at our disposal. By these methods we have found it possible to locate a fair percentage of changes. Over 40,000, or to be exact 40,551, addressed periodicals, books and invitations were put through the mail service with but a small margin of returns. The greatest care is taken to insure each member the safe delivery of all mail that they should receive, and the number of non-deliverable pieces that are returned has shown a negligible percentage of errors chargeable to this department.

Membership: The membership of the Society was increased last year by one campaign to the extent of a fair return for the amount expended in preparing the printed matter that was mailed, and seventy-seven Annual and eight Life members were added to the files. Besides these a number enrolled through the Director's office and that of Mr. Mitchell. The return was all that could be expected considering the period of financial depression which seemed to bear heavily upon every walk of life.

Publicity: Foreign publications continue to be interested in the Bulletin, and many requests are made for the use of the material in this publication. Frequently, publications not on the Bulletin mailing list, request permission to use the same material as its appearance in other journals brings it to their notice. A publisher who had travelled abroad extensively in search of illustrative material for a set of books, remarked that he, through this Society, was much more widely advertised outside of America than any other similar organization.

A lecture was prepared on the Zoological Park and presented before the Middle Atlantic States Photographic Association at Harrisburg, Pennsylvania; also one on the Galapagos Islands which was delivered before the Men's Club of the West Side Y.M.C.A. in New York City. The lectures were very thoroughly illustrated with slides and motion pictures and were most cordially received.

Expeditions: The Editor had the good fortune to visit the Galapagos Islands for the second time, with Dr. Townsend. Landings were made at Indefatigable, Albemarle, Narborough, Tower, Charles and Seymour Islands. As much of a pictorial record was gathered as the time allowed. On the return, the ship anchored at Cocos and the Dry Tortugas.

Following is a resume of the photographic work in the Zoological Park, in condensed form: New negatives filed 510; prints for various publications including those of the Society 789; photographs furnished artists, sculptors, for reference purposes and for the illustration of articles 1451. The index albums were put in complete order by the addition of 510 new pictures and the replacements of 150 that were faded and worn.

DISTRIBUTION OF SPECIMENS FROM THE ZOOLOGICAL PARK

REPORT OF
THE DEPARTMENT OF COMPARATIVE ANATOMY
AMERICAN MUSEUM OF NATURAL HISTORY

I BEG to submit herewith my report on the specimens received from the New York Zoological Society during the year 1930, with a summary of their distribution.

The monthly receipts of material were as follows:

	Specimens		*Specimens*
January	19	July	22
February	12	August	21
March	14	September	27
April	19	October	28
May	15	November	15
June	30	December	12
Total			234

These specimens were distributed to the following Museum Departments and other Institutions, or otherwise disposed of, as noted:

Department of Mammalogy	66
Department of Ornithology	50
Department of Herpetology	59
Department of Comparative Anatomy	20
Department of Public Education	2
Department of Preparation	1
College of Physicians and Surgeons	7
New York University	3
Mr. Donald Carter	1
Not wanted or destroyed	25
	234

WILLIAM K. GREGORY, *Curator.*

REPORT OF
THE PENSION BOARD
To The Board of Trustees

UNDER the Chairmanship of Dr. Lewis Rutherfurd Morris, the Pension Board held its meetings, during 1930, in the offices of Mr. Cornelius R. Agnew, Treasurer, at 82 Beaver Street, City.

The personnel of the Board for 1930 was as follows: Dr. Lewis Rutherfurd Morris, Chairman; Mr. W. Redmond Cross, Vice-Chairman; Mr. Cornelius R. Agnew, Treasurer; Mr. H. R. Mitchell, Assistant-Treasurer; Mr. Lee S. Crandall, Secretary; Dr. W. Reid Blair, Mr. George C. Clark, Dr. George Bird Grinnell and Dr. Charles H. Townsend.

Beginning on January 1, the Zoological Society increased its yearly contribution to the Pension Fund from $8,000 to $10,000.

During the year, superannuation pensions were granted to two members: Henry Moock and Bernard McEnroe, with service records in the Zoological Park of twenty-eight and thirty-one years, respectively.

Nine new members were elected during 1930, and there were two resignations, bringing the membership, at the close of the year, to one hundred and thirty-three.

Two members reached the age of sixty-five years but continued in the service, exempt from further payment of pension dues.

There were twenty-three names on the list of pensioners at the beginning of the year and the same number at the close. However, the monthly disbursement increased from $1,251.60 in January to $1,348.08 in December. In spite of this increase of $909.13 in benefit payments, the fund recorded a net gain in resources for the year of $8,313.04, as compared with a gain of $5,037.54 for 1929.

Just before the close of the year, Missouri Pacific Railway 5% bonds to the amount of $10,000 were purchased for $9,675.00, bringing the invested funds to the total of $156,018.00.

Lewis R. Morris, *Chairman.* Lee S. Crandall, *Secretary.*

REPORT OF THE
DIRECTOR OF THE AQUARIUM

CHARLES M. BREDER, JR.
Research Associate[1]

THREE outstanding factors mark the activities of the New York Aquarium for 1930. They are the acquisition of a handsome collection of fishes from the Galapagos Islands, the progress of construction work enlarging and improving the exhibition space and lighting system and the improvements made in the environments provided for the specimens. With the completion of the added tanks, the exhibition of a larger and more varied collection will be possible. With the continued study of environmental conditions further improvement in the health of specimens and increase in the number of species exhibited is anticipated.

THE LIVING EXHIBITS

The collections of the Aquarium numbered as follows on December 31, 1930:

	Species	*Specimens*
Birds	7	18
Reptiles	22	235
Amphibians	10	70
Fishes	181	4,179
Invertebrates	26	952
	246	5,454

In addition to this list there are a number of small fishes and invertebrates available as food for larger forms and for other purposes. The considerable increase in the number of species represented is chiefly accounted for by the collection of Galapagos fishes.

Specimens of Note: The predominant specimens of note consist of the collection of fishes, invertebrates and sea birds from the Galapagos

[1] Prepared for the *Director*, Dr. C. H. Townsend.

Islands made possible by the generosity of Mr. Vincent Astor. Many of these have never been exhibited in any aquarium heretofore.

A collection of the silver gar, *Strongylura marinus,* a species difficult to transport and which we could not establish before, caused considerable favorable comment. They are a credit to the collectors in the matter of careful and intelligent handling and are thriving only because of the improved water conditions.

Sea horses, which have been exceedingly rare locally for a number of years appeared in considerable numbers in the fall. Because of the congestion caused by the interest of visitors, two gallery tanks have been given over to the display of them.

Two sea lions were left in the Central Park Zoo due partly to the fact that our conditions for air breathing mammals are not satisfactory and partly because of the demands on space of the unusual number and varieties of other "floor pool animals."

Fish Hatchery: The following fish eggs were incubated in the hatchery, for exhibition purposes:

Material donated for the Hatchery.

By U. S. Bureau of Fisheries.
13,000 Rainbow Trout Eggs, from Vermont.
10,000 Rainbow Trout Eggs, from West Virginia.
5,000 Chinook Salmon Eggs from Oregon.

By California Fish and Game Commission.
25,000 Golden Trout Eggs, from California.

By New York State Hatchery.
20,000 Brown Trout (Fingerlings) from Cold Spring Harbor.

The following dispositions of material were made:
Brown Trout (Fingerlings) to Interstate Park 1,000.
Chinook Salmon (Fingerlings) to Interstate Park, 1,000.
Rainbow Trout (Fingerlings) to Interstate Park 10,000.
Golden Trout (Eyed Eggs) to Bradford Estate, N. Y. 25,000.

Work of the Collecting Boat: The activity of the *Seahorse* was somewhat varied from other years for a number of reasons. The need of replacement of large fishes was definitely less than formerly and



HENRY DEVERAUX WHITON

their presence in Sandy Hook Bay was notably lighter than before. Consequently, more attention was given to collecting small fishes by seine and the gathering of food materials. Toward the end of the season considerable activity was engaged in for the purpose of obtaining a collection of local marine fishes for the Detroit Aquarium to be exchanged for fresh water specimens. A single trip was made to Montauk Point for reconnaissance but unexpected bad weather interfered seriously with the work.

Collections by the Staff: It was quite unnecessary, for the first time in the history of the institution, to make the usual West Indian collections. Mr. Shea made a collection of fishes at Key West for the Boston Aquarium. A small percentage of specimens not in the Aquarium were retained.

PUBLIC RELATIONS

Attendance: The Aquarium was visited by 2,523,661 persons.

Gifts: The more notable gifts presented to the Aquarium during 1930 include the following:

Mr. Vincent Astor's gift of Galapagos specimens, discussed elsewhere, is probably the finest single gift of specimens ever presented to the Aquarium.

Due to leakage of the system of stored salt water it was necessary to add to our supply (See under "Loss of Water".) Mr. Henry D. Whiton presented 70,000 gallons for this purpose.

Major Chapman Grant, U. S. Army, presented a collection of large Porto Rican land crabs which have thrived exceedingly well.

Schools: Special class groups visited the Aquarium represented by 16,959 pupils under the charge of 626 teachers.

Publicity: Formal publicity consisted of the following:

Radio addresses were given over stations WNYC and WOR by Dr. C. H. Townsend, one; Mrs. R. B. Breder, nine; and Mr. Thomas Howley, four.

Dr. J. N. Gowanloch gave two addresses to local schools on aquatic biology.

Motion pictures were prepared by the Photocolor Corporation and by Paramount News Co.

Releases were given to the Press as deemed advisable.

COOPERATION WITH OTHER INSTITUTIONS

Exchanges: Exchanges were made with the following institutions:

Belle Isle Aquarium, Detroit, Michigan.
Shedd Aquarium, Chicago, Ill.
Boston Aquarium, Boston, Mass.
Aquarienfisch Import & Export Co., Wandsbek, Germany.

Gifts: The following institutions were presented with living specimens of especial interest to them:

Gothenburg Aquarium, Sweden.
Oceanographic Institute, Monaco.
Central Park Zoo, New York City.
Berlin Aquarium, Berlin, Germany.
Regent's Park Aquarium, London, England.

The following institutions were presented with non-living material:

American Museum of Natural History.
Montefiore Hospital, New York City.
College of Physicians and Surgeons, New York City.

Assistance to other Aquariums: Representatives of both the Fairmount Park Aquarium, Philadelphia, and the Shedd Aquarium, Chicago, visited the laboratory to study our method of controlling the chemical quantities in stored sea water. The Belle Isle Aquarium, Detroit, expressed a desire to do likewise. At this writing, Dr. Van Deusen of the Fairmount Park Aquarium reports favorable results.

Entertainment: The American Society of Ichthyologists and Herpetologists held their annual meeting in New York this year and on the evening of May 20 were given a private showing of the Aquarium exhibits. The offices and laboratory rooms were thrown open to the gathering while various informal discussions were held.

Atmospheric contamination: An organization known as the National Board on Sanitation established one of its daylight recording devices at the Aquarium in connection with a study of smoke conditions in New York City.

DEATH OF MR. WHITON

In the death of Mr. Henry Deveraux Whiton, the officers of the Aquarium lost a greatly valued friend. Through his interest and helpfulness the institution benefitted many times and in many ways. The Director especially misses the warm personal relationship with him that existed many years.

Mr. Whiton became a member of the Executive Committee of the Zoological Society in 1924, a Vice-president in 1925 and participated actively in carrying on the objects for which the Society was founded.

THE BUILDING AND EQUIPMENT

Parapet: The parapet of the outer wall was completed in the early part of the year.

Additional Exhibition Space: The two new large wall tanks on the main floor and the section of the gallery to be devoted to a display of "tropical toy fishes" are under construction and expected to be in service by the spring of 1931. In the latter there are to be seventy-two small aquaria and eight tanks for small amphibians. With the completion of this section the Aquarium will have expanded to its present physical limits. In connection with this construction, the old no longer useful and possibly dangerous smoke stack was removed, allowing one of the new tanks to be built somewhat larger than originally designed.

Lighting System: The new lighting system is nearly completed and is expected to be in operation early in 1931. This should make a great improvement in the appearance of the exhibition hall and in the display of specimens.

Roof Repairs: The Park Department corrected some faulty water proofing on the office roof.

Fresh Water Reservoir: Provision is being made for the establishment of a fresh water reservoir for the better control of its turbidity and chemical character (See under "Fresh Water Control".) In this the City Department of Water, Gas and Electricity is cooperating.

FINANCIAL REMARKS

Budget: The Maintenance Fund of the Aquarium, appropriated by the City for the past year, was $67,697.00. In addition to this the City appropriated later in the year $10,000 for the installation of a modern and adequate lighting system, $4,000 for additional salaries to the lower paid employees and $324.46 to meet a deficit at the end of the year. The New York Zoological Society has spent of its own funds the sum of $16,966.30 as additional compensation to the employees. Additional living exhibits were purchased by the Society for the Aquarium in the amount of $1,355.56.

Privilege Account: This account, started many years ago, has grown to an important amount as may be seen by reference to the financial statement. The total amount of sales for the year was $5,052.35, netting a profit of $2,633.73. The Guide Book to the Aquarium is the most in demand of any publication, 4,423 copies being sold during the year.

EXTRA-MURAL ACTIVITIES

Galapagos Islands: Mr. Vincent Astor organized an expedition to the Galapagos Archipelago with Dr. Townsend as leader of the scientific activities.[1] A general survey was made of the interior of Indefatigable Island which had never before been penetrated so far by a scientific party.

The party was composed of the folllowing: Commodore Astor, Kermit Roosevelt, Suydam Cutting, Robert Huntington, Dr. Eugene Pool of the New York Hospital, Clarence L. Hay of the American Museum of Natural History, James P. Chapin, ornithologist, American Museum of Natural History, H. K. Svenson, botanist, Brooklyn Botanic Garden, Wilfred S. Bronson, artist, Charles H. Townsend, New York Aquarium, who acted as director of the expedition and Elwin R. Sanborn, photographer, New York Zoological Society.

Much valuable material was collected, the fishes and sea birds being of greatest interest to the Aquarium. There were 265 of the former, many species of which had never been exhibited in any

[1] A more detailed account of this trip occupies the entire number of the *Bulletin* for July-August 1930.

aquarium before. At the present writing, this collection represents an important part of our marine display.

Galapagos Tortoises: The colony of Galapagos Tortoises established on Lignum Vitae Key last year has proven itself to be so much superior to the others that many more of the animals have been transferred to this station. Dr. Townsend visited this colony again and reports a continuation of satisfactory growth. The details of this study will be the subject of a forthcoming publication.

Bahamas: The month of February was spent about Nassau and the Berry Islands by Mr. Breder as the guest of Mr. Daniel Bacon. The data collected, although not of a spectacular nature, was of the utmost significance to very practical aquarium matters. Mr. Bacon permitted the use of his boat house on *Pirate's Nest* as a field laboratory, greatly facilitating the chemical work undertaken. The chief results of this expedition may be listed as follows:

1. Exact chemical analysis of certain factors in sea water from localities that many of our specimens actually come from. These data were of paramount importance to the previous laboratory work on the chemical control of our stored sea water and have gone far to help make it a success. (See also under "Work of the Laboratory".)

2. Data on the incidence of certain parasites and miscellaneous items on environment and habits.

3. Data on Synentognathi (flying fish et cetera) of especial significance in reference to the studies carried on at the Dry Tortugas, Florida, last year.

The cruise of Mr. Bacon's yacht *Escape* to the infrequently visited Berry Islands was an especially memorable trip, filled with many items of interest and value to the naturalist.

Block Island: Again as guest of Mr. Bacon, Mr. Breder visited Block Island, aboard his yacht *Querida,* in July. An examination was made of local conditions, with a view to Aquarium collecting. Conditions at Montauk Point, L. I., were found to be suitable and available. Later the *Seahorse* was sent to that locality.

For both of these valuable trips, the Aquarium is deeply grateful to Mr. Bacon.

Bermuda: Mr. Howley on vacation visited the Bermuda Aquarium and reports that it is a very attractive and well organized unit. The Curator, Mr. L. L. Mowbray, arranged instructive observation trips to nearby reefs.

WORK OF THE LABORATORY

The Aquarium laboratory, although only two years have passed since the installation of proper equipment, has already amply justified its establishment. The practical application of various seemingly abstract studies have made telling effects on the routine treatment of specimens and others are in various stages of development.

Control of Stored Sea Water: The successful maintenance of the proper bicarbonate condition of sea water as outlined in last year's report has exceeded our best hopes. A full description of the results and the exact technique is given in a forthcoming number of "Zoologica". Other aquariums, troubled with the same conditions, are following this procedure. (See under "Cooperation with other institutions".) As further evidences of the success of this method, the following may be mentioned.

For the first time in the history of the institution, a year has gone by without one or more trips to the West Indies for collection purposes. That this was not associated to any great degree with the collection brought from the Galapagos Islands in the spring is shown by the fact that we found it no small problem to properly place these specimens, so full were the tanks, at a time when formerly our concern was with the problem of making a satisfactory showing. The only other additions made to this collection were a few species we did not have, from a collection of Key West fishes made by our collector for the Boston Aquarium and some material collected by the *Seahorse* in local waters. Most of the latter consisted of material that we formerly could not keep well, if at all, in our stored water. Among these may be mentioned, silver gar, *Strongylura marinus* (Walbaum), silver perch, *Bairdiella chrysura* (Lacepede), lizard fish, *Synodus foetens* (Linnaeus) and various invertebrates. A remaining considerable portion of local specimens was given to the Detroit Aquarium in exchange for fresh water fishes.

The development of a variety of free living micro-organisms



Upper: Fishermen seining at the Berry Islands, Bahamas. Many of the specimens at the Aquarium were taken at this locality. *Lower*: Field laboratory at Pirate's Nest. (See text.)



The New York Aquarium, showing recently constructed third story and new cement facing on all walls.



Marbled grouper, *Dermatolepis* and snapper, *Xynichthys*. From the Astor Galapagos Expedition. Photograph, S. C. Dunton.



Blue-striped snapper, *Evoplytes viridis*. From the Astor Galapagos Expedition. Photograph, S. C. Dunton.



Snappers, *Xynichthys* and *Xynistius*. From the Astor Galapagos Expedition.
Photograph, S. C. Dunton.



Salema, *Archosargus* and Grunt, *Haemulon*. From the Astor Galapagos Expedition. Photographs, S. C. Dunton.



Marine gar. *Strongylura marinus,* from New York Harbor. Photograph, S. C. Dunton.



Upper: Galapagos puffer, *Spheroides* and Pacific black trigger-fish, *Melichthys*. *Lower*: Variegate wrasse, *Bodianus*. From the Astor Galapagos Expedition. Photograph, S. C. Dunton.

utterly unable to live in contaminated water is looked upon as a wholesome condition. It is planned to make a study of these. Enough *Cyclops* developed to form a substantial part of the food of some Sea Horses, *Hippocampus*.

One of the most noteworthy items in connection with the bicarbonate control is that practically every specimen that died during the year revealed on autopsy some condition to which death could be ascribed, such as external or internal parasites, injuries or pathological conditions. Formerly, the majority of dead fishes appeared to be normal in all respects and we now can refer those, with little doubt, to the directly toxic effects of abnormal chemical quantities in the sea water.

The amount of free carbon dioxide and hydrogen sulphide dissolved in the sea water is still slightly excessive and proper additional aeration apparatus has been designed and is now under construction. This we hope will make for further improvement in an already highly satisfactory system. The Beach-Russ Co., manufacturers of vacuum pumps, rendered valuable advice and assistance in this connection and we are again grateful to Dr. Homer Smith and Mr. N. Farnacci for technical advice in related chemical matters.

There has always been a loss of sea water in this extensive and complicated system of tanks, pipes and pumps that could not be ascribed to evaporation. On very critical examination of all factors and a careful check on daily losses, it was found that they averaged about one quart per minute. This distributed over such a system is clearly accounted for by "sweating" of the old cement tanks, coupled with very trivial leaks in drain valves due to tiny grains of sand et cetera, preventing their perfect seating. It is rather remarkable that such losses are not greater. Understanding these conditions, work is under way to systematically stop these "pin hole" leaks and tighten the system insofar as possible. At this writing the daily loss has already been reduced about two-thirds. A perfectly tight system under the bicarbonate treatment should show an actual increase in the bulk of water.

Control of Fresh Water: The fresh water for a number of years has been turbid at certain seasons to the point where proper viewing

of the specimens has been impossible. Because it is entirely satisfactory for household purposes, further control by the water works cannot be looked for. Our filters are entirely unable to cope with this condition, due to the presence of a fine colloidal clay. A large part of the year's activity was devoted to the study of possible means of correcting this by about a dozen standard methods, including mechanical ultra-filters, chemical precipitation, electrical precipitation, and bio-precipitation. Each one examined or experimented with showed one or more drawbacks for our purposes, such as leaving the water in improper chemical condition, expense or difficulty of operation or excessive demands of space for equipment. Finally it was determined to establish a closed system, similar to that of the salt water supply. The plans for this are now being drawn up. By correcting the matter this way, advantages in addition to clarifying the water are gained as the system is then under our absolute command and we are independent of seasonal or other fluctuations in the nature of the mixed waters from various water sheds. For example, it will be possible to maintain any degree of acidity or alkalinity suitable and a desirable microfauna may be developed.

Hydrogen Sulphide: The presence of hydrogen sulphide in readily detectable quantities in experimental balanced marine aquaria, led to an investigation of the quantities of this toxic gas in the various aquarium systems and in the air over the floor pools. Dr. J. N. Gowanloch, formerly of Dalhousie University, was employed to make a study of this matter. Thus far his researches point to quantities of a sufficient amount to probably act as a general depressant on aquatic animals and to a greater extent on air breathing animals, especially birds and mammals. More adequate aeration and ventilation of the whole building to void the gas, seem to be the indicated procedure at this writing. It may be noted in this connection that difficulties with seals and sea lions may be associated more directly with this gas than with merely a lack of ultraviolet rays as was first suspected. In many cases new animals drooped long before it could be possible for them to react in such a manner because of a lack of ultraviolet.

Chemical Buffering in Balanced Aquaria: By suitable experiments it has been shown in the laboratory that many of the "tropical toy

fishes" will exist comfortably in waters of widely differing pH values, but that in a well "balanced" aquarium the water becomes more buffered with time and that the fishes thrive better under such conditions. This explains the value of "old water" for such purposes, made so much of by "home aquarists." The matter of adding primary sodium phosphate as employed by them is in the belief of lowering the pH to a suitable range for their fishes in a tank that has become too alkaline. Of course primary sodium phosphate is a common buffer salt and what is really done is to buffer the aquarium that is unbuffed on the alkaline side at least, the reduction of pH being merely incidental. The cause of such alkalinity is complex and probably variable but it suggests too much or too active plant life. In "balanced" marine aquaria, the effects are somewhat different due to the presence of such relatively larger quantities of salts and the fact that it is normally so highly buffered. Due to this factor and others poorly understood, such aquaria become very much more rapidly buffered. It was suspected in these connections that a natural accumulation of phosphates was the cause of this buffering. Quantitative analysis by Dr. Gowanloch goes to substantiate this and points to the rationale of the use of primary sodium phosphate for correcting such aquaria when necessary. Much further work must be done on this matter before anything definite may be stated, however.

Ultraviolet Irradiations: While the clinical effects of ultraviolet on the sea birds appear to have a generally tonic result, we suspect that the presence of hydrogen sulphide goes far to offset it and it is expected that results will be more striking, once this has been removed. With the correction of the sea water, the question has arisen of the possible effects of ultraviolet on dissolved organic matter. Mr. A. E. Parr of the Bingham Oceanographic Foundation suggests the possibility of the significance of such on the cycle in the open sea. The utter lack of it in the Aquarium's system might have a very direct effect on the micro-fauna or flora and indirectly on the whole system. An investigation of this is under way. (See also under "Trematodes.")

Bacterial Eye Disease: It was noted that in the collection of fishes made at Key West, Florida, for the Boston Aquarium that the bacterial eye disease before encountered at that place was still present. By

holding their collection in bay water we were able to avoid contaminating the closed circulation. The few specimens retained from that collection were held in quarantine in bay water and those that developed it were cured as before, supposedly by the lower salinity, within a month.

Trematodes: A study of the life history of the only parasite now giving serious trouble (*Epidella melleni* Macallum) was made by Mr. T. L. Jahn of New York University during the summer. This work was followed by Mr. L. R. Kuhn of the same institution who considered means of suitably controlling it, and made such progress that no further fear of uncontrollable outbreaks is conceivable. More frequent cleansing of the filters removes the numerous eggs that lodge there. Ultraviolet rays proved to be lethal to the trematodes in doses not damaging to the fishes. The parasites killed by this means turned a pale green on death. It is hoped to study this effect in further detail. The supposition made in last year's report that these parasites flourish better in acidified sea water was not borne out by the periodic abundance of the organism this year, in properly treated sea water. Mr. Kuhn tried a variety of substances in individual treatment and found them effective in the order mentioned:

Solargentum (and other similar Silver products) 1/7 of 1 per cent in fresh water

Eosin, 0.03 per cent in sea water

Sodium chloride added to sea water to bring sp. g. to about 1.032.

The latter is especially favored as such an increase in salinity kills the parasites almost immediately and shows no effect on the fishes treated for periods as high as twenty-four hours, at least. One of the advantages of this method is that an entire tank may be so treated and then allowed to amalgamate with the general system without doing more than raising the salinity a trifle which must be constantly lowered on account of other factors in any event. With the operation of the salinostat to be described in the number of *Zoologica* on salt water control this correction is automatic. Both of these students worked under the direction of Dr. Horace Stunkard.

Visiting Students: The following persons used facilities at the laboratory at various times during the year in addition to the special

investigators Dr. Gowanloch, Mr. Jahn and Mr. Kuhn employed on definite Aquarium problems.

1. Dr. E. H. Behre, Louisiana State University. Chromatophore physiology.
2. Mr. C. W. Coates, Sex recognition in viviparous fishes.
3. Dr. J. N. Gowanloch, Conditioned reflexes in fishes.
4. Dr. H. S. Hopkins, New York University. Tissue respiration.
5. Dr. L. L. Richter, Fish poisoning.
6. Dr. Homer Smith and Mr. N. Farnacci, Kidney function in the Toad Fish.
7. Dr. Florence Wood, New York University. Certain photographic work.

PUBLICATIONS BY THE STAFF

CHARLES H. TOWNSEND

The Whaling Situation: Science Vol. LXXII, No. 1878, Dec. 26, 1930. pp. 652-653.

The Jan.-Feb. Bulletin of the New York Zoological Society devoted to a consideration of the rapidly disappearing whales and the June-July number devoted to the Astor Galapagos expedition, were prepared by the Director.

C. M. BREDER, JR.

Report on Synentognath Habits and Development: Carnegie Institution Year Book. No. 28. 1928-1929. pp. 279-282. 1 plate.

West Indian Forms of the Flying Fish Genus Cypselurus, With the Description of a New Species. C. M. Breder, Jr. and J. T. Nichols. Novitates. No. 417. March 27, 1930. pp. 1-9. 5 Figs.

A Key to Atlantic Species of the Genus Cypselurus With a New Flying Fish from the Cleveland Museum's "Blossom" Expedition. J. T. Nichols and C. M. Breder, Jr. Novitates No. 428. August 25, 1930. pp. 1-8. 4 Figs.

Remarks on the Flying Fish Genus Ptenonotus. C. M. Breder, Jr. and J. T. Nichols. Copeia. No. 3. Sept. 30, 1930. p. 89.

On the Structural Specialization of Flying Fish From the Standpoint of Aerodynamics. Copeia No. 4, December 31, 1930. pp. 114-121.

PERSONNEL

At times during the year various men were supplied by The Association for Improving the Condition of the Poor. The addition of these men freed our regular employees of routine details enabling them to attend to various matters of not a strictly routine nature.

Two of our employees were made special officers so as to have police authority in the building at all times.

ATTENDANCE AT THE NEW YORK AQUARIUM BY MONTHS—1930

January	Visitors	129,315	Daily Average	4,173
February	"	175,248	"	6,259
March	"	166,169	"	5,360
April	"	221,458	"	7,382
May	"	252,177	"	8,135
June	"	287,581	"	9,586
July	"	307,613	"	9,923
August	"	325,185	"	10,489
September	"	238,144	"	7,939
October	"	173,554	"	5,599
November	"	145,664	"	4,856
December	"	101,553	"	3,276
		2,523,661		6,915

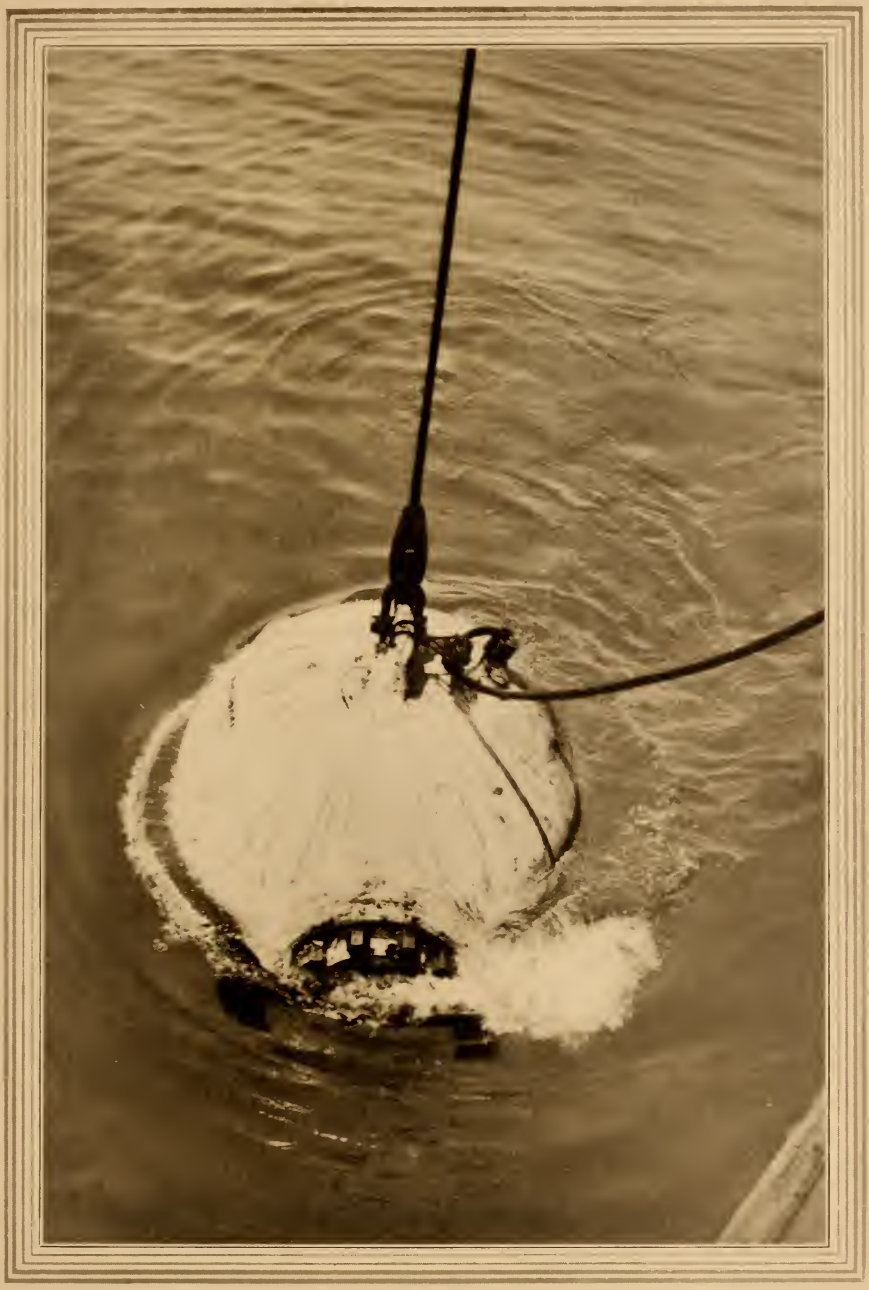
SALINITY

Record of monthly mean temperatures and specific gravities and acidity of the water of New York Harbor at the Battery during the year 1930.[1]

	Temperature	Hydrogen ion Concentration (pH values)	Specific Gravity
January	43	7.4	1.011
February	43	7.3	1.013
March	43	7.4	1.011

[1] From observations at the New York Aquarium by Mr. Thomas Howley. Specific Gravity readings corrected to 60° F. pH values read on a La Motte comparator. Not corrected for salt error, as being too small.

April	46	7.5	1.011
May	56	7.3	1.013
June	62	7.5	1.014
July	69	7.3	1.015
August	72	7.5	1.016
September	71	7.5	1.016
October	65	7.5	1.015
November	57	7.5	1.016
December	46	7.5	1.015



The bathysphere submerging on its way to fourteen hundred feet depth; showing the steel cable and rubber hose containing telephone and electric light wires.



Head of an abyssal dragonfish, taken from a half-mile down. It has small teeth and no floor to its mouth.



A school of Gerupylids, deep-sea fish whose paired fins have changed into two long spines.



Nonsuch Island from the air, showing the laboratory buildings, and coral reefs in one to five fathoms of water.



Deep-sea starfish, unnamed. Serpent stars from eighty fathoms off Nonsuch Island.



A calm day at Nonsuch. View toward Brangman's Island and the sea where trawling and bathysphere diving is carried on.



Gurnet Rocks in a hurricane. It was impossible to withstand the force of the wind for more than a few seconds.



Young abyssal fishing-frog. A pediculate fish with the fin-folds still unabsorbed.

REPORT OF THE DIRECTOR

DEPARTMENT OF TROPICAL RESEARCH

WILLIAM BEEBE, *Director*

Regular Staff: WILLIAM BEEBE, DIRECTOR; JOHN TEE-VAN, General Assistant; GLORIA HOLLISTER, Technical Associate; WILLIAM K. GREGORY, Scientific Associate; E. NEWTON HARVEY, Scientific Associate; OTIS BARTON, Associate in charge of Deep Sea Diving; JOCELYN CRANE, Laboratory Assistant; MARGARET ELLIOTT, Laboratory Assistant; VIRGINIA ZIEGLER, Secretary; HELEN TEE-VAN, E. M. BOSTELMANN, LLEWELLYN MILLER, Artists; H. BARNES, P. BASS, J. CANNON, J. CONNERY, P. CROUCH, J. GUERNSEY, P. JACKSON, A. HOLLIS, Field Assistants.

Research Staff on Kartabo, Arcturus and Bermuda Material: CHARLES J. FISH, MARIE P. FISH, LEE BOONE, HENRY B. BIGELOW, A. L. TREADWELL, C. H. CURRAN, S. H. WILLIAMS, G. C. ROBSON, F. M. SCHOTT.

SIX and a half months of 1930 were spent in the field at Nonsuch Island, Bermuda, on the Second Bermuda Oceanographic Expedition, the Thirteenth Expedition of the Department of Tropical Research.

The Director, with a staff of nine, left New York on the S. S. *Fort St. George* on April 9, and returned on October 28 on the *Bermuda.*

The occupancy of Nonsuch and the general character of the work were like that of last year, a continuation and elaboration of the study of Bermuda fish-life, from the tide pools to those of the ocean's depths, two miles down. The results of the present year, naturally exceeded those of 1929, fore-armed as we now were with knowledge which enabled us to avoid errors and waste of time.

Buildings: More tents were occupied than last year. The only serious threat was the hurricane of August 26 when for forty-eight hours we did not know how much harm would be done to roofs and walls. Fortunately we escaped the full force and the circularity of the heart of the storm, and suffered but slight damage.

Domestic Arrangements: The government caretaker, Arthur Tucker and his wife, managed the menage as efficiently as last year.

Transportation: Thanks to the generosity of William Delano, we had a most serviceable twenty-six foot launch, the *Skink*, which was used steadily throughout the period of our stay. This saved us the considerable expense of chartering a boat and was available for use day and night. The other boats were reconditioned and in constant use.

Relations with the Government: These remained as friendly as before. The death of His Excellency the Governor Sir Louis Bols was a deep personal loss. It was at his suggestion that we originally owed the idea of occupying Nonsuch as a laboratory base. The Acting Governor, Hon. W. E. Evans, did everything in his power for us.

Equipment: The electric generator served us steadily throughout our stay, as did the aquaria and salt-water pumps.

On July 16 the trawling winch on the *Gladisfen* broke down and we were compelled to order a new drum from the States.

Another instance of kindness on the part of the government was the laying of an electric cable across Nonsuch Scaur from Cooper's Island, in readiness for our use next year.

A new Bathygauge for recording the course of the nets during the trawl was made for us by L. R. Smith, Esq. It was entirely successful. The most important event of the year was the bringing to the Island by Mr. Otis Barton of a steel Bathysphere. In this Mr. Barton and I were able to make fifteen descents, one to a depth of 1426 feet. Full details of this successful adventure have been published in the Zoological Society *Bulletin*, for November-December of the present year.

Staff and Visitors: In addition to our regular staff, Dr. E. Newton Harvey and Dr. William K. Gregory spent some time working at the Station. During our stay we entertained many visitors, among whom were Admiral Haggard, Dr. W. Reid Blair, Prof. E. G. Conklin, Prof. Ross Harrison, and H. E. St. Johnstone, the Governor of the Leeward Isles.

One of the best boys I have ever had on any expedition, Patten Jackson, was taken ill on September 28 and died five days later on October 2, from acute appendicitis and peritonitis.

Scientific Work: Our researches followed the same general lines as last year, continued investigations of shallow, mid and deep-water fish, with especial emphasis on their life histories. The number of deep-sea net hauls totalled 976, and a great many drawings and paintings were made of fresh specimens, and the immediate segregation and separate bottling of the more delicate organisms. Miss Hollister's work in clearing and dying fish for skeleton study was carried on without a break.

Gifts: As usual, generous friends contributed without stint to the needs of the expedition. Among the more important gifts may be mentioned:

John Roebling: 50 per cent discount on the cost of trawling wire.
George W. Cole: Copy of rare Bermuda bibliography.
William Delano: Twenty-six foot launch *Skink.*
Herbert L. Satterlee: Two refrigerators.
Barbara Crane and Mrs. Bass: Contributions toward extra salaries.
Hanovia Chemical Co.: Ultra-violet ray machine.
L. R. Smith: One steel Bathygauge.
Fifteen bronze balls with special hinges.
Two metre-wheels of hard bronze.
Two glass windows for pressure tank.
One hydro tension metre.
Four 200-lb. lead weights.
One reeling gear for towing engine.

Publications: The Deep-Sea Diving number of the *Bulletin* of the Zoological Society (November-December, 1930) was the largest ever issued, containing sixty-six pages. Fifty copies of this Bulletin were bound in cloth for presentation to those who have notably aided the expeditions of the Department.

A new translation has appeared "*Im Dschungel der Fansanen*"—Leipzig. Word has been received that two volumes of the Department's researches have been translated into Russian, and another, "Sous la Mer Tropicale," is under way in French.

Published contributions of the Department of Tropical Research in 1930 were thirty-seven in number, bringing the total up to 346.

CONTRIBUTIONS

309—Deep Sea Fish of the Hudson Gorge.
William Beebe,
Zoologica, XII, Number 1.

310—Haplophryne hudsonius, a new species; Description and Osteology.
William Beebe,
Zoologica, XII, Number 2.

311—Fishing a Mile Down in the Hudson Gorge.
William Beebe,
Zoological Society Bulletin, March-April.

312—Report of Director, Department of Tropical Research, for 1928.
William Beebe,
Zoological Society Annual Report.

313—Bermuda Oceanographic Expedition.
William Beebe,
Bull. N. Y. Z. S., XXXII, No. 2, p. 65.

314—The Bermuda Oceanographic Expedition.
William Beebe,
Bull. N. Y. Z. S., XXXIII, No. 2, p. 35.

315—How Bermuda Acquired its Shore Fishes.
John Tee-Van,
Bull. N. Y. Z. S., XXXIII, No. 2, p. 67.

316—Fish Magic.
Gloria Hollister,
Bull. N. Y. Z. S., XXXIII, No. 2, p. 72.

317—On the Rare Abyssal Octopod Melanoteuthis beebei (sp. n.); A contribution to the Phylogeny of the Octopoda.
G. C. Robson,
Proc. Zool. Soc. London, 1929, p. 469.

318—Notostomus beebei.
Lee Boone,
Zoologica, Vol. XII, No. 4.

319—New Decapod and Isopod Crustacea from Gonave Bay, Haiti.
Lee Boone,
Zoologica, Vol. XII, No. 4.

320—I Dived with Dr. Beebe.
Wells Lewis,
St. Nicholas Magazine, December 1929.

321—Deep Sea Soundings from the Ocean off Bermuda.
William Beebe,
New York Times, July 14, 1929.

322—The Life of the Ocean Depths.
William Beebe,
New York Times, December 22, 1929.

323—The Architectural Beauty of Fish.
William Beebe,
Bull. N. Y. Z. S., XXXII, No. 2, p. 67.

324—Low Depth Record Broken off Nonsuch.
The Royal Gazette and Colonist Daily, June 13, 1930.

325—Scientist Explores New Submarine Wonders at Great Depths.
New York Herald Tribune, June 15, 1930.

326—Unknown forms of Life from Dark Ocean Depths.
The Illustrated London News, June 14, 1930.

327—Wonders of the Dim Water World: Strange Fish of the Tropic Seas.
Illustrated London News, June 21, 1930.

328—A Man-Made Monster goes Down to the Depths of the Ocean.
New York Times, June 22, 1930.

329—Down into Davy Jones's Locker.
New York Times, Magazine Section, July 13, 1930.

330—Conquering Two Worlds.
Don Glassman,
World Magazine, July 27, 1930.

331—A New Method of Deep Sea Observation at First Hand.
Henry Fairfield Osborn,
Science, LXXII, No. 1854, p. 27.

332—Deep Sea Investigations by Submarine Observation Chamber.
Nature, August 9, 1930.

333—Fading Brilliancy of Tropical Fishes.
New York American, August 10, 1930.

334—Man's Greatest Ups and Downs.
Popular Science Monthly, September, 1930.

335—Three Hundred Fathoms Beneath the Sea.
Popular Mechanics Magazine, October, 1930.

336—The Call to Wings.
William Beebe,
Delineator Magazine, September, 1930.

337—The Cedars of Nonsuch.
William Beebe,
Atlantic Monthly, May, 1930.

338—Two Remarkable Cephalopods.
G. C. Robson,
Natural History Magazine, October, 1930.

339—A Quarter Mile Down in the Open Sea.
William Beebe,
Bull. N. Y. Z. S., Vol. 33, No. 6, p. 199, Nov.-Dec., 1930.

340—The Bathysphere.
Otis Barton,
Bull. N. Y. Z. S., Vol. 33, No. 6, p. 233, Nov.-Dec., 1930.

341—How the Bathysphere was Operated.
John Tee-Van.
Bull. N. Y. Z. S., Vol. 33, No. 6, p. 234, Nov.-Dec., 1930.

342—Telephoning to Davy Jones's Locker.
Gloria Hollister,
Bull. N. Y. Z. S., Vol. 33, No. 6, p. 240, Nov.-Dec., 1930.

343—A Perfected Depth Recorder.
William Beebe,
Bull. N. Y. Z. S., Vol. 33, No. 6, p. 244, Nov.-Dec., 1930.

344—Patten Jackson.
William Beebe,
Bull. N. Y. Z. S., Vol. 33, No. 6, p. 248, Nov.-Dec., 1930.

345—Log of the Bathysphere.
William Beebe and Gloria Hollister,
Bull. N. Y. Z. S., Vol. 33, No. 6, p. 249, Nov.-Dec., 1930.

346—Annual Report to the Zoological Society 1929.
William Beebe.

FINANCES

The financial administration of the Zoological Society is under the Treasurer, the Executive Committee and the Finance Committee.

The Board of Estimate and Apportionment of the City of New York appropriated for the year 1930 a total of $481,525.71 toward the maintenance of the Zoological Park and the Aquarium. Balances of funds from previous appropriations for alterations and repairs at the Aquarium were available and expenditures were made against them during the year, all of which are accounted for in this report.

During the year 1930 from income, contributions and publication funds the Society expended a grand total of $244,188.63. The expenditures in the Improvement and Repair Account were $20,834.91.

For the continuation of its work, of great public benefit in the Park and Aquarium, the Society requires the immediate addition of $2,000,000 to its general endowment, and desires the constant attention of its members and friends to the needs of its Library, extension of its scientific research work, Heads and Horns Collection, Publications and Gallery of Animal Paintings.

Communications or contributions to the Endowment Fund should be addressed either to the

Secretary of the New York Zoological Society, 101 Park Avenue, New York, N. Y. or to the

Treasurer of the New York Zoological Society, 82 Beaver Street, New York, N. Y.

The form of gift or bequest is printed on page XI of this report.

STATEMENT OF FUNDS PROVIDED BY THE VARIOUS CITY ADMINISTRATIONS FOR THE DEVELOPMENT AND MAINTENANCE OF THE ZOOLOGICAL PARK AND AQUARIUM

FROM THE ORGANIZATION OF THE SOCIETY TO THE PRESENT

1896 to 1931

MAYOR	COMPTROLLER	Year	MAINTENANCE		CORPORATE STOCK ISSUES	
			Park	Aquarium	Park	Aquarium
Robert A. Van Wyck 1898–1901	Bird S. Coler 1898–1901	1899	$30,000.00	.....	.....	.....
		1900	40,000.00	.....	$125,000.00	.....
		1901	65,000.00	.....	300,000.00	.....
		1902	85,000.00	$ 5,959.97	250,000.00	.....
Seth Low 1902–1903	E. M. Grout 1902–1903	1903	104,965.00	46,453.68	250,000.00	$30,000.00
		1904	104,965.00	46,439.72	275,000.00	40,000.00
G. B. McClellan 1904–1909	E. M Grout 1904–1906	1905	134,965.00	44,968.50	275,000.00	.....
		1906	144,965.00	44,987.71	250,000.00	.....
	Herman A. Metz 1907–1909	1907	141,558.75	44,183.87	100,000.00	.....
		1908	154,627.00	44,157.27	65,000.00	.....
		1909	162,325.00	45,971.44	10,000.00	.....
		1910	167,632.00	45,974.86	89,500.00	.....
W. J. Gaynor 1910–1913 Ardolph L. Kline 1913	W. A. Prendergast 1910–1913	1911	174,632.00	47,560.21	155,000.00	.....
		1912	182,365.00	46,597.08	.....	.....
		1913	191,925.00	47,335.62	.....	29,100.00
		1914	200,000.00	46,995.53	.....	.....
J. P. Mitchel 1914–1917	W. A. Prendergast 1914–1917	1915	200,000.00	46,991.66	21,425.00	.....
		1916	197,074.35	46,996.43	.....	.....
		1917	199,560.00	46,903.61	.....	.....
		1918	207,586.00	48,630.71	.....	.....
J. F. Hylan 1918 to 1926	C. L. Craig 1918 to 1926	1919	190,000.00	45,000.00	5,000.00	.....
		1920	250,098.27	53,971.48	15,000.00	.....
		1921	276,951.01	65,203.12	.....	86,000.00
		1922	264,618.05	63,341.26	.....	25,000.00
		1923	264,515.00	59,226.00	.....	.....
		1924	264,514.49	58,309 00	.....	7,970.00
		1925	264,514.49	58,334.00	52,000.00	33,000.00
		1926	274.280.00	62,348.00	.....	1,500.00
James J. Walker 1927 to 1931	Charles W. Berry 1927 to 1931	1927	277,280.00	65,228.00	.....	.....
		1928	319,38050	88,111.00	.....	.....
		1929	338,359.00	71,232.00	35,000.00	65,000.00
		1930	350,170.92	81,354.79	.....	.....
		1931	349,459.00	76,167.00	.....	.....
	Totals		$6,573,285.83	$1,594.933.52	$2,272,925.00	$317,570.00

Note: The appropriations for each year are granted by the Board of Estimate the previous year.

SUMMARY OF EXPENDITURES, 1896 to 1930, NEW YORK ZOOLOGICAL SOCIETY AND THE CITY OF NEW YORK

ON ACCOUNT OF THE DEVELOPMENT AND MAINTENANCE OF THE ZOOLOGICAL PARK AND THE AQUARIUM, INCLUDING THE PURCHASE OF COLLECTIONS AND ALSO FOR THE SCIENTIFIC AND GENERAL PURPOSES OF THE SOCIETY.

Year	EXPENDED BY THE CITY OF NEW YORK			FROM GATE RECEIPTS		EXPENDED BY THE NEW YORK ZOOLOGICAL SOCIETY									
	Zoological Park Maintenance	Aquarium Maintenance	Bond Issues a/c—Park and Aquarium	Construction and Repairs	Purchase of Animals	Zoological Park Development	Aquarium Improvements	Zoological Park Maintenance	Aquarium Maintenance	Purchase of Animals	Aquarium Specimens	Heads and Horns Collection	Pension Fund Contribution	Library and Paintings	Scientific and General Purposes
1896	.....	.....	.....	.....	.....	$ 4,213.63	.....	.....	.....	.....	.....	.....	.....	.....	.....
1897	.....	.....	.....	.....	.....	6,424.61	.....	.....	.....	.....	.....	.....	.....	.....	$ 2,903.74
1898	.....	.....	.....	.....	.....	23,597.80	.....	$ 1,292.16	.....	.....	.....	.....	.....	.....	4,339 20
1899	$ 30,000.00	.....	.....	.....	.....	145,495.80	.....	7,038.61	.....	$ 8,540.72	.....	.....	.....	$ 102.76	3,476.02
1900	40,000.00	.....	$125,000.00	.....	$ 2,470.88	34,626.24	.....	6,189.33	.....	3,784.32	.....	.....	.....	88.13	5,601.78
1901	65,000.00	.....	300,000.00	.....	2,998.80	18,348.61	.....	3,714.37	.....	11,652.24	.....	.....	.....	462.20	7,597.16
1902	85,000.00	$ 5,959.97	250,000.00	.....	4,256.50	5,908.69	.....	2,757.57	.....	20,983.07	.....	.....	.....	224.73	11,068.69
1903	104,965.00	46,453.68	280,000.00	.....	5,912.95	1,038.20	.....	.....	.....	20,361.62	.....	.....	.....	456.03	13,608.10
1904	104,965.00	46,439.72	315,000.00	.....	5,421.90	1,013.87	.....	1,894.37	.....	14,299.61	.....	.....	.....	887.16	15,072.84
1905	134,965.00	44,968.50	275,000.00	.....	6,849.00	144.00	.....	.....	.....	20,643.40	.....	.....	.....	418.10	18,773.90
1906	144,965.00	44,987.71	250,000.00	.....	8,132.35	778.48	.....	.....	.....	14,907.36	.....	.....	.....	319.16	17,961 67
1907	141,558.75	44,183.87	100,000.00	.....	8,248.65	370.72	.....	.....	.....	10,606.03	.....	$ 892.71	.....	644.05	15,999.68
1908	154,627.00	44,157.27	65,000.00	.....	9,446.40	232.27	.....	.....	.....	4,231.61	.....	735.77	.....	1,313.87	14,693.92
1909	162,325.00	45,971.44	10,000.00	.....	9,992.75	2,860.92	.....	.....	.....	9,734 43	.....	7,340.82	.....	609.56	17,168.95
1910	167,632.00	45,974.86	89,500.00	.....	9,909.90	5,918.35	.....	.....	.....	4,339.25	$ 973.90	2,036.39	.....	1,021.87	20,627.77
1911	174,632.00	47,560.21	155,000.00	.....	11,611.15	1,155.00	.....	.....	.....	6,659.89	1,191.80	1,615.38	.....	1,221.26	23,409.39
1912	182,365.00	46,597.08	.....	.....	11,838.40	40.00	.....	.....	.....	22,750.18	1,350.03	556.94	.....	1,031.55	32,109.01
1913	191,925.00	47,335.62	29,100.00	.....	12,404.25	218.45	.....	.....	.....	10,665.57	1,850.25	486.00	.....	732.97	32,543.88
1914	200,000.00	46,995.53	.....	$ 9,237.81	3,831.15	2,175.13	.....	.....	.....	22,590.44	1,792.99	338.73	$3,333.33	3,541.15	28,246.42
1915	200,000.00	46,991.66	21,425.00	9,175.86	.....	887.88	.....	.....	.....	13,629.41	1,466.64	1,024.91	8,000.00	4,181 24	31,398.08
1916	197,074.35	46,996.43	.....	9,599.81	.....	425.30	.....	.....	.....	13,511.12	2,193.57	1,031.47	8,000.00	1,555.12	38,339.99
1917	199,560.00	46,903.61	.....	3,488.31	7,118.90	1,450.05	.....	11,537.79	.....	10,175.70	1,637.15	18.12	8,000.00	2,869 20	44,262.48
1918	207,586.00	48,630.71	.....	2,642.70	.....	48.12	.....	1,580.00	$ 93.61	8,425.92	960.19	18.61	8,000.00	3,559.85	34,125.49
1919	190,000.00	45,000.00	5,000 00	4,917.84	.....	.....	$ 3,450.00	19,924.00	407.07	13,345.59	1,028.05	88.27	8,000.00	1,442 07	45 599.71
1920	250,098.27	53,971.48	15,000.00	17,438.28	.....	5,007.00	4,095.03	5,141.92	.....	32,761.08	1,654.02	263.86	8,000.00	2,517.64	51,018.20
1921	276,951.01	65,203.12	86,000.00	25,463.77	.....	88,734.92	53,635.02	6,068.17	976.47	27,442.59	2,165.05	2,661.67	8,000 00	4,698.24	55,684 15
1922	264,618.05	63,341.26	25,000.00	17,060.00	.....	50,888.65	16,153.03	10,074.88	3,326.28	43,047.41	3,057.91	7,191 93	8,000.00	1,765.78	58,797.69
1923	262,724.50	57,166.63	.....	18,388.20	.....	5,000.00	.....	19,019.09	3,319.44	24,456.20	1,432.89	1,550.69	8,000.00	3,391 96	58,404.21
1924	262,471.01	57,319.20	7,970.00	16,806.00	.....	.....	32,272.21	28,956.34	8,097.14	11,560.62	2,013.88	942.34	8,000.00	1,938.77	76,559.41
1925	262,808.69	58,324 89	85,000 00	19,974 05	.....	.....	.....	38,793.01	4,380.45	20,843.01	2,609.55	667.78	8,000 00	1,174.24	242,753 89
1926	273,815.12	62,266.20	1,500.00	20,102.90	.....	.....	.....	45,467.10	7,261.21	23,460.04	2,847.35	306.32	8,000.00	562.40	87,915.27
1927	276,855.19	65,216.89	.....	18,960.48	.....	.....	1,395.00	61,968.22	11,656.97	27,545.92	2,861.55	135.00	8,000.00	2,477.37	82,807.54
1928	319,380.50	88,109.12	.....	18,106.25	.....	2,480,06	.....	52,676.35	10,776.84	21,001.88	2,912.97	107.89	8,000.00	1,168.15	88,794.37
1929	338,359.00	71,229.35	65,000.00	21,957.80	.....	13,095.54	984.85	59,673.38	13,670.81	23,783.69	3,572.14	669.48	8,000.00	4,029.63	122,774.78
1930	350,170 92	81,343.46	.....	20,834.91	.....	2,500.89	375.00	65,600.39	16,966.30	17,492.92	1,355.56	639.04	10,000.00	2,726.37	134,278.88
Add premium on Bonds, less Balances reverting to the City			35,559.89												
Expended in connection with preparation and publication of "A Monograph of the Pheasants" — gift of Col. Anthony R. Kuser															194,100.00
Expended in connection with Galapagos Expedition — gift of Harrison Williams															98,670.00
Totals. .	$6,217,397.36	$1,515,599.47	$2,591,054.89	$254,154.97	$120,443.93	$425,079.18	$112,360.14	$449,367.05	$80,932.59	$539,232.84	$40,927.44	$31,320.12	$133,333.33	$53,132.58	$1,831,486.26
		$10,324,051.72			$374,598.90					$3,697,171.53					

CLASSIFIED SUMMARY OF EXPENDITURES FOR THE YEAR 1930, NEW YORK ZOOLOGICAL SOCIETY

	PARK MAINTENANCE		AQUARIUM MAINTENANCE		NEW YORK ZOOLOGICAL SOCIETY FUNDS						GRAND TOTAL	
	From City Funds		From City Funds		Special Funds		General Income Fund		Scientific & Research			
	Salaries	Other Items	Salaries	Other Items	Salaries	Other Items	Salaries	Other Items	Salaries	Other Items	Salaries	Other Items
Zoological Park: Maintenance by City												
Administration	$33,664.95										$33,664.95	
Care of Buildings and Collections	105,128.57										105,128.57	
Care of Grounds	89,744.98										89,744.98	
Supplies		$56,483.64										$56,483.64
Equipment		7,486.05										7,486.05
Materials		19,866.52										19,866.52
Miscellaneous		37,796.21										37,796.21
Gate Receipts												
Construction and Repairs					$19,628.91	$1,206.00					19,628.91	1,206.00
Contributions by Society												
Maintenance							$56,900.39	$10,025.60			56,900.39	10,025.60
Administration							11,700.00	12,236.95			11,700.00	12,236.95
Purchase of Animals						17,492.92						17,492.92
Scientific Purposes								9,972.36	$15,425.79	$48,648.98	15,425.79	58,621.34
Heads and Horns Collection										639.04		639.04
Insurance								2,010.93				2,010.93
Membership Expenses							2,460.83	9,335.90			2,460.83	9,335.90
Pension Contributions					4,326.36		5,665.00				9,991.36	
Miscellaneous Expenditures							5,811.08	8,589.71			5,811.08	8,589.71
Interior Building Alterations						1,175.29						1,175.29
Oil Paintings						1,810.50						1,810.50
Aquarium: Maintenance by City			$56,213.72	$25,129.46							56,213.72	25,129.46
Contributions by Society												
Maintenance							16,966.30	375.00			16,966.30	375.00
Insurance								442.06				442.06
Aquarium Specimens								1,355.56				1,355.56
Miscellaneous Expenditures								822.08				822.08
Totals	$228,538.50	$121,632.42	$56,213.72	$25,129.46	$23,955.27	$21,684.71	$99,503.60	$55,166.15	$15,425.79	$49,288.02	$423,636.88	$272,900.76
Totals by Funds	$350,170.92		$81,343.18		$45,639.98		$154,669.75		$64,713.81		$696,537.64	

Treasurer's Reports

For the Year Ending December 31, 1930

Cornelius R. Agnew, *Treasurer*
82 Beaver Street. New York, N. Y.

BALANCE SHEET
December 31, 1930

ASSETS

Cash:			
At City Bank Farmers Trust Company			$ 66,903.26
On hand			100.00
			$ 67,003.26
Accounts Receivable:			
Due from City of New York on account of:			
1930 Park Maintenance Appropriation	$ 42,822.29		
1930 Aquarium Maintenance Appropriation	12,184.25		
Department of Parks, Manhattan	324.46		55,331.00
Interest Accrued on Bond at time of purchase			61.11
Investments—Stocks and Bonds (at Cost or Bequest Values)			3,834,224.18
			$3,956,619.55

LIABILITIES

Accounts Payable:			
For Park Maintenance			$ 11,804.81
For Aquarium Maintenance			6,752.73
			$ 18,557.54
Endowment Funds:			
General Endowment	$751,726.71		
Sage Endowment	698,048.81		
Rockefeller Endowment	1,003,015.25		
George F. Baker Endowment	102,600.25		
Jacob H. Schiff Endowment	50,000.00		
Anna M. Harkness Endowment	1,040,297.50		
Ladies Auxiliary Endowment	5,680.00	$3,651,368.52	
Special Endowment Funds:			
Cadwalader Animal Endowment	$23,839.88		
Stokes Bird Endowment	5,415.00		
Florence Lydig Sturgis Endowment	13,416.81		
Carnegie Pension Endowment	100,066.25		
William E. Damon Endowment	10,000.00	$ 152,737.94	
Special Funds:			
Animal Account	$31,547.11		
Art Gallery Account	2,833.69		
Improvement and Repair Account	6,762.98		
Auxiliary Pensions Account	54,391.57		
Revolving Publication Account	5,000.00		
Biological Laboratory Account	20,000.00	120,535.35	
General Income Account:		3,270.27	
Scientific and Research Funds:			
Publication Account	$2,922.24		
Tropical Research Account	1,996.78		
Bermuda Expedition Account	1,129.38		
Library Account	1,098.99		
Heads and Horns Collection Account	2,562.82		
Special Publication Account	439.72	10,149.93	$3,938,062.01
			$3,956,619.55

GROUP I

Maintenance Fund

ZOOLOGICAL PARK ACCOUNT

INCOME

Received from the City of New York on account of Park Maintenance Appropriation of $350,170.92 for the year 1930	$307,348.63
Due from the City on Account of Park Maintenance Appropriation	42,822.29
Deficit in City Maintenance Appropriation for 1930 (Paid by the New York Zoological Society	65,600.39
	$415,771.31

EXPENDITURES

Personal Service:		
General Administration	$33,664.95	
Maintenance of Buildings and Care of Collections	105,128.57	
Maintenance and Care of Grounds	89,744.98	
Salaries in excess of City Appropriation	56,900.39	$285,438.89
Supplies:		
Food for Animals	$41,849.41	
Fuel	12,085.32	
Fuel Oil	1,598.28	
Office Supplies	903.23	
Stationery and Printing	1,253.48	
Drugs and Medicines	268.45	
Medical and Surgical Supplies	112.17	
Disinfectants	169.00	
Janitors' Supplies	195.31	
Motor Vehicle Supplies	318.47	
Ice	39.90	
Lubricating Oils	26.42	
Nursery Stock and Seeds	793.76	
Nursery Supplies	202.75	
Miscellaneous Supplies	1,808.39	61,624.34
Equipment:		
Uniforms and Wearing Apparel	$2,630.04	
Office Equipment	849.82	
Motor Vehicles and Equipment	188.55	
Awnings and Shades	56.20	
Janitors' Equipment	592.66	
Painters' Equipment	362.68	
Rubber Hose	199.52	
Tools and Machinery	4,198.77	
Miscellaneous Equipment	2,137.55	11,215.79

Materials:

Motor Vehicle Materials	$ 87.06	
Bolts, Nails and Hardware	610.83	
Electrical Materials	27.18	
Fencing and Netting	4,744.20	
Furnace Materials	1,918.03	
Glaziers' Materials	211.97	
Lumber	2,440.31	
Paints and Oils	4,702.15	
Plumbing Materials	8,223.67	
Sand, Cement and Brick	1,624.03	
Steel and Iron	1,654.57	
Miscellaneous Materials	3,214.89	29,458.89

Contract or Open Order Service:

Apparatus and Machinery Repairs	$ 1,007.23	
Painting Labels	119.00	
Plumbing Repairs	3,201.09	
Sanitary Service	112.50	
Fence Construction	13,003.01	
Oil Burner Construction	2,000.00	
Miscellaneous Repairs	1,830.36	
Motor Vehicle Repairs	136.58	
Electric Service	3,754.39	
Gas	96.90	
Telephone Service	1,946.50	
Expressage and Deliveries	264.75	27,472.31

Contingencies:

Medical Attendance, Animals	$ 72.00	
Miscellaneous Expenses	489.09	561.09
		$415,771.31

GROUP I

Maintenance Fund

AQUARIUM ACCOUNT

INCOME

Received from the City of New York on account Aquarium Maintenance Appropriation of $81,030.33 for the year 1930	$68,834.47
Due from the City on account Aquarium Maintenance Appropriation	12,184.25
Due from the City (Dept. of Parks, Manhattan)	324.46
Unexpended balance reverting to the City	11.61
Deficit in City Maintenance Appropriation for 1930 (Paid by the New York Zoological Society)	16,966.30
	$98,321.09

EXPENDITURES

Salaries and Wages	$56,213.72
Salaries in excess of City Appropriation	16,966.30
Forage and Veterinary Supplies	3,752.94
Fuel Supplies	3,510.88
Office Supplies	206.64
Laundry, Cleaning and Disinfecting Supplies	275.80
Refrigerating Supplies	213.81
General Plant Supplies	627.25
Wearing Apparel	341.70
Office Equipment	273.33
General Plant Equipment	1,654.54
General Plant Materials	1,793.65
Repairs and Replacements	11,757.12
Telephone Service	314.27
Expressage and Cartage	260.06
Contingencies	147.47
Total	$98,309.48
Unexpended balance reverting to the City	11.61
	$98,321.09

M. C. Fenstemaker, *Secretary.*

GROUP II

Endowment Fund

GENERAL ENDOWMENT ACCOUNT

Funds as of December 31, 1929:		
Cash in Bank	$ 4,016.43	
Investments at cost	694,257.38	$ 698,273.81
RECEIPTS		
Estate of Ogden Mills	$ 50,000.00	
Estate of Charles E. Rhinelander	1,552.90	
Estate of Julia E. Thacher	500.00	
Life Memberships	1,400.00	53,452.90
		$751,726.71
Funds as of December 31, 1930:		
Investments at cost (for details see list of securities)	$748,257.38	
Uninvested balance	3,469.33	$751,726.71
		$751,726.71

ANNA M. HARKNESS ENDOWMENT ACCOUNT

Funds as of December 31, 1929:		
Cash in Bank	$ 533.75	
Investments at cost	1,039,763.75	$1,040,297.50
Funds as of December 31, 1930:		
Investments at cost (for details see list of securities)	$1,039,763.75	
Uninvested balance	533.75	$1,040,297.50

ROCKEFELLER ENDOWMENT ACCOUNT

Funds as of December 31, 1929:		
Cash in Bank	$ 148.37	
Investments at cost	1,002,866.88	$1,003,015.25
Funds as of December 31, 1930:		
Investments at cost (for details see list of securities)	$1,002,866.88	
Uninvested balance	148.37	$1,003,015.25

GROUP II

Endowment Fund

SAGE ENDOWMENT ACCOUNT

Funds as of December 31, 1929:		
Cash in Bank	$ 1,312.67	
Investments at cost	696,243.46	$ 697,556.13
RECEIPTS		
Profit on Sale of Securities		492.68
		$ 698,048.81
Funds as of December 31, 1930:		
Investments at cost (for details see list of securities)	$ 698,033.46	
Uninvested balance	15.35	$ 698,048.81
		$698,048.81

GEORGE F. BAKER ENDOWMENT ACCOUNT

Funds as of December 31, 1929:		
Cash in Bank	$ 2,587.75	
Investments at cost	100,012.50	$ 102,600.25
Funds as of December 31, 1930:		
Investments at cost (for details see list of securities)	$ 100,012.50	
Uninvested balance	2,587.75	$ 102,600.25

JACOB H. SCHIFF ENDOWMENT ACCOUNT

Funds as of December 31, 1929:		
Cash in Bank	$ 525.00	
Investments at cost	49,475.00	$ 50,000.00
Funds as of December 31, 1930:		
Investments at cost (for details see list of securities)	$ 49,475.00	
Uninvested balance	525.00	$ 50,000.00

LADIES' AUXILIARY ENDOWMENT ACCOUNT

Funds as of December 31, 1929:		
Cash in Bank	$ 680.00	
Investments at cost	5,000.00	$ 5,680.00
Funds as of December 31, 1930:		
Investments at cost (for details see list of securities)	$ 5,000.00	
Uninvested balance	680.00	$ 5,680.00

GROUP III

Special Endowment Fund

CADWALADER ANIMAL ENDOWMENT ACCOUNT

Funds as of December 31, 1929:		
Cash in Bank	$ 2,839.88	
Investments at cost	20,000.00	$ 22,839.88
RECEIPTS		
Interest on Investments		1,000.00
		$ 23,839.88
Funds as of December 31, 1930:		
Investments at cost (for details see list of securities)	$ 20,000.00	
Unexpended balance	3,839.88	$ 23,839.88
		$ 23,839.88

WILLIAM E. DAMON ENDOWMENT ACCOUNT

RECEIPTS		
Estate of Alma C. Damon		$ 10,000.00
Funds as of December 31, 1930:		
Investments at cost (for details see list of securities)	$ 9,705.00	
Uninvested balance	295.00	$ 10,000.00

FLORENCE LYDIG STURGIS ACCOUNT

Funds as of December 31, 1929:		
Cash in Bank	$ 2,879.31	
Investments at cost	9,987.50	$ 12,866.81
RECEIPTS		
Interest on Investments		550.00
		$ 13,416.81
Funds as of December 31, 1930:		
Investments at cost (for details see list of securities)	$ 9,987.50	
Unexpended balance	3,429.31	$ 13,416.81
		$ 13,416.81

GROUP III

Special Endowment Fund

STOKES BIRD ENDOWMENT ACCOUNT

Funds as of December 31, 1929:		
Cash in Bank	$ 158.54	
Investments at cost	5,056.46	$ 5,215.00
RECEIPTS		
Interest on Investments		200.00
		$ 5,415.00
Funds as of December 31, 1930:		
Investments at cost (for details see list of securities)	$ 5,056.46	
Unexpended balance	358.54	$ 5,415.00
		$ 5,415.00

CARNEGIE PENSION ENDOWMENT ACCOUNT

Funds as of December 31, 1929:	
Investments at cost	$ 100,066.25
Funds as of December 31, 1930:	
Investments at cost (for details see list of securities)	$ 100,066.25

GROUP IV

Special Fund

ANIMAL ACCOUNT

Unexpended balance as of December 31, 1929:		
Cash in Bank	$ 28,266.31	
Cash on Hand	100.00	$ 28,366.31
RECEIPTS		
Receipts from Park:		
Privilege Department (1930 receipts)	$ 20,000.00	
Sale of Animals	595.00	
Checking	34.05	
Miscellaneous Receipts	44.67	20,673.72
		$ 49,040.03
EXPENDITURES		
Purchase of Animals:		
Mammals	$ 10,428.00	
Birds	3,658.50	
Reptiles	2,540.25	
Insects	50.00	$ 16,676.75
Express and Other Charges	$ 611.34	
Traveling and Other Expenses	204.83	816.17
Unexpended balance as of December 31, 1930:		
Cash on Hand	$ 100.00	
Cash in Bank	31,447.11	31,547.11
		$ 49,040.03

ART GALLERY ACCOUNT

Unexpended balance as of December 31, 1929		$ 4,644.19
		$ 4,644.19
EXPENDITURES		
Oil Paintings	$ 1,800.00	
Miscellaneous Expenses	10.50	$ 1,810.50
Unexpended balance as of December 31, 1930		2,833.69
		$ 4,644.19

REVOLVING PUBLICATION ACCOUNT

RECEIPTS	
General Income Fund (transfer)	$ 5,000.00
Unexpended balance as of December 31, 1930	$ 5,000.00

GROUP IV

Special Fund

IMPROVEMENT AND REPAIR ACCOUNT

Unexpended balance as of December 31, 1929		$ 8,250.03
RECEIPTS		
Gate Receipts		20,523.15
		$ 28,773.18
EXPENDITURES		
Boiler Repairs	$ 262.50	
Cage Repairs	3,848.12	
Comfort Station Repairs	2,198.25	
Concrete Work	1,364.00	
Fence Repairs	4,171.29	
Guard Wires	566.30	
Monkey House Repairs	1,175.29	
Painting	963.90	
Replanting	1,246.00	
Walks	3,055.68	
Miscellaneous Repairs	3,158.87	$ 22,010.20
Unexpended balance as of December 31, 1930		6,762.98
		$ 28,773.18

AUXILIARY PENSION ACCOUNT

Unexpended balance as of December 31, 1929		$ 52,363.15
RECEIPTS		
General Income Fund (transfer)	$ 5,000.00	
Interest on Investments	1,354.78	6,354.78
		$ 58,717.93
EXPENDITURES		
Auxiliary Pensions		$ 4,326.36
Funds as of December 31, 1930:		
Investments at cost (for details see list of securities)	$ 46,000.00	
Unexpended balance	8,391.57	54,391.57
		$ 58,717.93

BIOLOGICAL LABORATORY CONSTRUCTION ACCOUNT

RECEIPTS	
General Income Fund (transfer)	$ 20,000.00
Unexpended balance as of December 31, 1930	$ 20,000.00

GROUP V

General Income Fund

RECEIPTS

Income from General Endowment	$ 35,304.00	
Income from Harkness Endowment	64,625.00	
Income from Rockefeller Endowment	49,329.37	
Income from Sage Endowment	39,116.40	
Income from Baker Endowment	5,250.00	
Income from Schiff Endowment	2,412.50	
Income from Ladies' Auxiliary Endowment	200.00	
Interest on Bank Balances	1,942.75	$ 198,180.02
Annual Dues	$ 19,740.00	
Sustaining Dues	120.00	19,860.00
American Museum of Natural History		400.00
		$ 218,440.02

EXPENDITURES

General Office Expenses	$ 4,929.27	
Stationery, Printing & Office Supplies	3,807.68	
Salary of Chairman	7,000.00	
Salary of Secretary	3,500.00	$ 19,236.95
Treasurer's Office Expenses	$ 3,700.00	
Audit of Accounts	1,000.00	4,700.00
Annual Report	$ 7,747.27	
Annual Meeting Expenses	1,104.01	
Reception Expenses	1,456.32	
Membership Committee Expenses	2,489.13	12,796.73
Zoological Park Maintenance Salaries in excess of City Appropriation (transfer)	$ 56,900.39	
Zoological Park Maintenance Supply Deficit (transfer)	8,700.00	
Zoological Park Insurance	2,010.93	
Zoological Park Engineer's Services	900.00	
Zoological Park Flying Cage Bracings	425.60	68,936.92
Conservation Activities	$ 5,623.03	
Educational Activities	4,860.31	
Research Scholarships	1,550.00	
Astor Galapagos Expedition	1,964.13	
Dickey Expedition	500.00	
Paneling Trustees' Room	995.00	15,492.47
Aquarium Maintenance Salaries in excess of City Appropriation (transfer)	$ 16,966.30	
Aquarium Insurance	442.06	
Aquarium Specimens	1,355.56	
Aquarium Expenses	822.08	
Aquarium Engineer's Services	375.00	
Galapagos Tortoise Expenses	335.20	20,296.20

GROUP V

General Income Fund

Aid to Employees	$ 2,158.92	
Lunch Service A.I.C.P. Laborers	906.34	
Pension Fund Income Account	5,665.00	
Auxiliary Pension Account (transfer)	5,000.00	13,730.26
Biological Laboratory Construction Account (transfer)	$ 20,000.00	
Revolving Publication Account (transfer)	5,000.00	
Publication Account (transfer)	27,000.00	
Library Account (transfer)	1,500.00	
Heads and Horns Account (transfer)	1,000.00	54,500.00
Miscellaneous Expenses		5,480.22
		$ 215,169.75
Unexpended balance as of December 31, 1930		3,270.27
		$ 218,440.02

GROUP VI

Scientific and Research Fund

PUBLICATION ACCOUNT

Unexpended balance as of December 31, 1929		$ 921.14
RECEIPTS		
General Income Account (transfer)	$ 27,000.00	
Sale of "Our Vanishing Wild Life"	20.00	
Sale of "Tropical Wild Life"	28.52	
Sale of Zoopathologica"	2.95	27,051.47
		$ 27,972.61
EXPENDITURES		
Bulletin	$ 13,829.13	
Zoologica	2,067.19	
Photographs and Slides	3,600.58	
"Wild Animal Paintings"	5,553.47	$ 25,050.37
Unexpended balance as of December 31, 1930		2,922.24
		$ 27,972,61

SPECIAL PUBLICATION ACCOUNT

Unexpended balance as of December 31, 1929	$ 439.72
Unexpended balance as of December 31, 1930	439.72

GROUP VI

Scientific and Research Fund

TROPICAL RESEARCH ACCOUNT

Unexpended balance as of December 31, 1929		$ 1,040.08
RECEIPTS		
Coleman du Pont	$ 2,500.00	
George F. Baker	1,000.00	
Edward S. Harkness	1,000.00	
Lewis R. Morris	1,000.00	
George D. Pratt	1,000.00	
F. C. Walcott	1,000.00	
Robert S. Brewster	500.00	
Anson W. Hard	500.00	
Edwin Thorne	500.00	$ 9,000.00
		$ 10,040.08
EXPENDITURES		
Salaries		$ 8,043.30
Unexpended balance as of December 31, 1930		1,996.78
		$ 10,040.08

1930 BERMUDA EXPEDITION ACCOUNT

Unexpended balance as of December 31, 1929		$ 475.33
RECEIPTS		
Harrison Williams	$ 15,750.00	
Mortimer L. Schiff	10,750.00	
Ernest F. Weir	2,500.00	
William Delano	1,730.00	
Mrs. Edna Albert	1,000.00	
W. E. Boeing	1,000.00	
Herbert Satterlee	401.00	33,131.00
		$ 33,606.33
EXPENDITURES		
Salaries	$ 2,411.72	
Subsistence	4,926.98	
Traveling and Other Expenses	4,510.04	
Laboratory Supplies	3,456.44	
Laboratory Expenses	1,356.34	
Stationery and Office Supplies	119.31	
Salving Tug	8,750.00	
Miscellaneous Supplies	1,637.67	
Miscellaneous Expenses	5,308.45	$ 32,476.95
Unexpended balance as of December 31, 1930		1,129.38
		$ 33,606.33

GROUP VI

Scientific and Research Fund

LIBRARY ACCOUNT

Unexpended balance as of December 31, 1929		$ 514.86
RECEIPTS		
General Income Account (transfer)		$ 1,500.00
		$ 2,014.86
EXPENDITURES		
Books, Pamphlets, etc.	$ 240.20	
Subscription to Periodicals	209.10	
Miscellaneous Supplies	64.65	
Miscellaneous Expenses	401.92	$ 915.87
Unexpended balance as of December 31, 1930		1,098.99
		$ 2,014.86

HEADS AND HORNS COLLECTION ACCOUNT

Unexpended balance as of December 31, 1929		$ 2,201.86
RECEIPTS		
General Income Fund (transfer)		$ 1,000.00
		$ 3,201.86
EXPENDITURES		
Heads and Horns	$ 443.45	
Express and Other Charges	74.19	
Miscellaneous Expenses	121.40	$ 639.04
Unexpended balance as of December 31, 1930		2,562.82
		$ 3,201.86

H. R. MITCHELL, *Manager.*
January 1, 1931.

CORNELIUS R. AGNEW, *Treasurer.*

Securities Owned by the New York Zoological Society

December 31, 1930

Listed at Cost or Gift Value

Endowment Fund

GENERAL ENDOWMENT ACCOUNT

	Bonds:	
$30,000	American Tel. & Tel. Co., 20-yr. Skg. Fd. Debenture 5½%, 1943	$29,475.00
4,000	Baltimore & Ohio RR. Co., 1st Mtge. 4%, 1948	3,120.00
85,000	Canadian Pacific Rwy. Co. Col. Trust Gold Bond, 5%, 1954	84,975.00
3,000	Central RR. of New Jersey Gen. Mtge., 5%, 1987	3,031.25
17,600	Chicago, Milwaukee, St. Paul & Pacific RR. Co. Conv. Gold Series A, 5%, 2000	16,620.00
4,400	Chicago, Milwaukee, St. Paul & Pacific RR. Co. 50-yr. Mtge. Gold Series A, 5%, 1975	4,155.00
100,000	Chicago & Northwestern Ry. Co. 1st Conv. Debenture A, 4¾%, 1949	100,000.00
20,000	Chicago & Northwestern Ry. Co. Gen. Mtge., 4%, 1987	19,750.00
15,000	Detroit Edison Co. Gen. & Rfg. Series A, 5%, 1949	14,625.00
20,000	Illinois Central RR., Chic., St. L. & N. O. Jt. RR. Co., 1st Ref. Series A, 5%, 1963	20,083.75
5,000	Lackawanna Steel Co. 1st Cons. Conv. Series A, 5%, 1950	4,891.25
9,000	Lehigh Valley Terminal Ry. 1st Mtge., 5%, 1941	9,090.00
75,000	P. Lorillard Co., 5%, 1951	72,775.00
5,000	Mich. Central RR. Co., Mich. Air Line RR., 1st Mtge., 4%, 1940	4,950.00
20,000	Milwaukee, Sparta & No. West'n. Ry. Co., 1st Mtge., 4%, 1947	18,900.00
1,000	Morris & Essex RR. Co., 1st Rfdg. Mtge., 3½%, 2000	876.25
25,000	New England Tel. & Tel. Co., 1st Series A, 5%, 1952	24,843.75
25,000	N.Y. & Westchester Ltg. Co., Gen. Mtge., 100-yr., 4%, 2004	19,750.00
25,000	Oregon Short Line RR. Co., 1st Cons. Mtge. Guaranteed by Union Pacific RR., 5%, 1946	25,990.00
16,000	Pennsylvania RR. Co., Secured 40-yr., 5%, 1964	16,120.00
10,000	St. Paul, Minn. & Man. Ry. Co., Cons. Mtge., 4%, 1933	9,800.00
80,000	Standard Oil Co. of N. J., 20-yr. Gold Deb., 5%, 1946	80,603.13
47,000	Union Pacific RR. Co., 1st Mtge. RR. & L.G., 4%, 1947	44,058.00
7,000	United New Jersey RR. & Canal Co. Gen. Mtge., 4%, 1944	6,230.00
20,000	Vandalia RR. Co., Cons. Mtge. Series B, 4%, 1957	19,400.00
	Stocks:	
Shares		
50	American Superpower Corp., 1st Preferred	4,975.00
140	Elec. Bond & Share Co., $6.00 Preferred	14,805.00
100	Louisville Gas & Elec. Co., 6% Cum. Preferred	10,750.00
100	N. Y., Lackawanna & Western Ry. Co. Capital	9,615.00
	Bonds and Mortgages:	
54,000	No. 2 Realty Corp., 1375-81 Broadway, N.W. cor. of West 37th St., N. Y. C., 5½%, 1935	54,000.00
		$748,257.38

ANNA M. HARKNESS ENDOWMENT ACCOUNT

	Bonds:	
$50,000	American Gas & Elec. Co. Deb. Gold, 5%, 2028	$50,250.00
50,000	Boston & Maine RR. 1st, 5%, 1967	49,757.50
50,000	Chic. Mil. St. P. & Pac. RR. Co. Gtd. Series A, 5%, 1975	47,881.25
50,000	Solvay Amer. Inv. Corp. 15-yr. Secured G. Ser. A, 5%, 1942	49,750.00
250,000	Standard Oil Co. of N. J. 20-yr. Gold Debenture, 5%, 1946	255,000.00
Shares	*Stocks:*	
500	American Gas & Elec. Co., $6.00 Preferred	53,375.00
500	Buffalo Niagara & Eastern Power Corp. 1st Pfd	48,225.00
500	Columbia Gas & Elec. Corp. 6% Cum. Pfd. Series A	54,875.00
500	Consolidated Gas. Co. of N. Y. $5.00 Cum. Preferred	51,975.00
500	Indianapolis Power & Light 6½% Cum. Preferred	52,875.00
400	Louisville Gas & Elec. 6% Cumulative Preferred	42,925.00
500	New York, Chicago & St. L. RR. 6% Cum. Pfd. Series A	54,500.00
2,500	Prairie Pipe Line Co. Capital	104,000.00
500	Public Service Elec. & Gas Co. 6% Cum. Pfd. Series 1925	54,375.00
	Bonds and Mortgages:	
70,000	Benenson Bldg. Corp., 14/22 Cortlandt St., 9/17 Dey St., N. Y. C., Participation Mortgage, 5½%, 1934	70,000.00
		$1,039,763.75

ROCKEFELLER ENDOWMENT ACCOUNT

	Bonds:	
$50,000	Alleghany Corporation 15-yr. Col. Tr. Convt. 5%, 1954	$51,450.00
15,000	Canadian Pacific Ry. Co. Col. Tr. Gold, 5%, 1954	14,962.50
50,000	Central Pacific Ry. Co., Rfdg., 4%, 1949	43,050.00
100,000	Chesapeake & Ohio Ry. Genl. Mtge., 4½%, 1992	96,906.25
50,000	Chic., Burl'n & Quincy RR. Co., Ser. A, 1st & Rfdg. 5%, 1971	49,322.50
100,000	Chicago & Northwestern Ry. Co., 1st & Rfdg. Mtge., 5%, 2037	104,018.75
50,000	Kreuger & Toll Co. Second Skg. Fund Gold Deb., 5%, 1959	48,875.00
50,000	Lackw'a Steel Co. Conv., 1st Cons. Mtge. Ser. A, 5%, 1950	49,312.50
50,000	Lake Shore & Michigan Southern RR. Co., 4%, 1931	45,915.50
50,000	Liggett & Myers Tobacco Co. Gold, 5%, 1951	48,243.75
25,000	P. Lorillard Co., Gold, 5%, 1951	24,037.50
50,000	New Eng. Tel. & Tel. Co. 1st Series A, 5%, 1952	48,735.00
50,000	New Eng. Tel. & Tel. Co. 1st Series B, 4½%, 1961	47,225.00
40,000	New York Central RR. Co. Cons. Series A, 4%, 1998	32,015.00
50,000	New York Central RR. Co. Rfdg. & Imp. Series C, 5%, 2013	47,562.50
50,000	N. Y. Tel. Co. 1st and Gen. Mtge. Skg. Fund, 4½%, 1939	46,787.50
50,000	Union Pacific RR. Co. 1st RR. & L. G., 4%, 1947	45,693.75
18,000	West. Union Tel. Co., Funding & R. E., 4½%, 1950	16,899.50
Shares	*Stocks:*	
505	American Tobacco Co. Pfd	56,230.63
565	Morris & Essex RR. Co. Par. $50.00	45,623.75
	Bonds and Mortgages:	
40,000	Benenson Building Corporation, 14/22 Cortlandt St., 9/17 Dey St., New York City, Participation Mtge., 5½%, 1934	40,000.00
		$1,002,866.88

SAGE ENDOWMENT ACCOUNT

Bonds:

$50,000	Central Pacific Ry. Co., 1st Rfdg., 4%, 1949	$43,983.75
75,000	Chi., Burl. & Quincy RR. Co. 1st & Rfdg., Series A, 5%, 1971	75,605.00
6,000	Erie RR. Co. Prior Lien, 4%, 1996	3,015.00
5,000	Ill. Central RR., Chic. St. L. & N. O. RR. Co., Jt., 1st Rfdg., Series "A," 5%, 1963	5,022.50
21,000	Interborough Rapid Transit Co., 1st & Rfdg. Gold Stamped, 5%, 1966	13,413.75
75,000	Liggett & Myers Tobacco Co., Gold, 5%, 1951	74,296.25
10,000	New Brunswick Southern Ry. Co. 1st Mtge., 30-yr. Gold, 3%, 1933	8,100.00
10,000	New York Central RR. Co. Cons. Mtge. Series "A" Gold, 4%, 1998	8,034.00
50,000	New York Central RR. Co. Rfdg. & Impr. Series "C," 5%, 2013	47,250.00
4,000	New York State Rys. 50-yr. 1st Cons. Gold Series "A," 4½%, 1962	2,645.00
50,000	New York Telephone Co. 1st & Genl. Mtge. Skg. Fund, 4½%, 1939	43,326.50
10,000	Oregon, Wash. RR. & Nav. Co., 1st & Rfdg. Mtge. Series "A," 4%, 1961	6,500.00
15,000	Pennsylvania RR. Co., Secured, 5%, 1964	15,018.75
5,000	Rochester Ry. & Lt. Co. Cons. Mtge. Gold, 5%, 1954	4,475.00
6,000	Schenectady Ry. Co. 1st Mtge. 30-yr. Series "A" Gold, 5%, 1946	3,690.00
100,000	South. Pacific Co. 40-yr. Gold Bonds of 1929, 4½%, 1969	99,125.00

Stocks:

Shares		
95	American Tobacco Co. Preferred	10,319.37
200	Atchison, Topeka & Santa Fe Ry. Co. Preferred	14,525.00
650	Bankers Trust Co. Capital	29,250.00
51	Chicago & Northwestern Ry. Co. Common	3,184.31
500	Consolidated Gas Co. of N. Y. $5.00 Cum. Preferred	47,000.00
754-12/200	Electric Bond & Share Co., no par Common	5,330.50
360	Electric Bond & Share Co., $6.00 no par Preferred	38,070.00
2,008	General Electric Co., Common	27,610.00
176	General Electric Co., Special	1,760.00
112	Illinois Central RR. Co., Common	12,742.53
200	Pennsylvania RR. Co., Capital	8,031.37
220	Pullman Incorporated, Capital	9,636.00
100	Union Pacific RR. Co., Preferred	6,237.50
250	United States Steel Corp., Preferred	27,359.38
38	Western Union Telegraph Company, Capital	3,477.00
		$698,033.46

GEORGE F. BAKER ENDOWMENT ACCOUNT

	Bonds:	
$50,000	Pennsylvania RR. Co., Gen. Mtge. Series "B," 5%, 1968	$50,012.50
	Bonds and Mortgages:	
50,000	Benenson Building Corp., 14/22 Cortlandt St., 9/17 Dey St., N. Y. City, par. Mtge., 5½%, 1934	50,000.00
		$100,012.50

JACOB H. SCHIFF ENDOWMENT ACCOUNT

	Bonds:	
$25,000	American Telephone & Telegraph Co. Skg. Fund, 5%, 1960	$25,250.00
	Stocks:	
Shares		
300	Morris & Essex RR. Co., $50.00 par, Capital	24,225.00
		$49,475.00

LADIES' AUXILIARY ENDOWMENT ACCOUNT

	Bonds:	
$5,000	Missouri & Ill. Bridge & Belt RR. Co., 1st Mtge. 4%, 1951	$5,000.00

Special Endowment Fund

CADWALADER ANIMAL ENDOWMENT ACCOUNT

	Bonds:	
$20,000	Illinois Central RR. Co. & Chic., St. L. & N. O. RR. Co. Jt. 1st Rfdg. Mtge. Series "A," 5%, 1963	$20,000.00

WILLIAM E. DAMON ENDOWMENT ACCOUNT

	Bonds:	
$10,000	North American Edison Deb. C., 5%, 1969	$9,705.00

FLORENCE LYDIG STURGIS ENDOWMENT ACCOUNT

	Bonds:	
$10,000	American Telephone & Telegraph Co. Skg. Fund, 5½%, 1943	$9,987.50

STOKES BIRD ENDOWMENT ACCOUNT

Bonds:

$5,000	Illinois Central RR. Co. Rfdg. Mtge., 4%, 1955	$5,056.46

CARNEGIE PENSION ENDOWMENT ACCOUNT

Bonds:

$25,000	Chicago & Northwestern Ry. Co., Genl. Mtge. 4%, 1987	$23,687.50
25,000	Illinois Central RR. Co., Rfdg. Mtge., 4%, 1955	23,062.50
25,000	Lehigh Coal & Nav. Co., Cons. Mtge. Skg. Fund, 4½%, 1954	24,875.00
1,000	Michigan Central RR. Co., Gold Bond, 3½%, 1952	817.50
5,000	Morris & Essex RR. Co., 1st Rfdg. Mtge., 3½%, 2000	4,373.75
25,000	Philadelphia & Baltimore Central RR. Co., 1st Mtge., 4%, 1951	23,250.00
		$100,066.25

AUXILIARY PENSION ACCOUNT

Bonds and Mortgages:

$32,000	Harclin Realty Corp., 172 E. 85th St., N. Y. C., 6%, 1935	$32,000.00
14,000	No. 2 Realty Corp., 1375-81 Broadway, N.W. cor. of W. 37th St., N. Y. C., 5½%, 1935	14,000.00
		$46,000.00

PENSION FUND INCOME ACCOUNT

Uninvested balance as of December 31, 1929:		
At National City Bank of New York	$ 3,137.61	
At Corn Exchange Bank Trust Co.	454.63	$ 3,592.24
Investments at cost		146,343.00
		$ 149,935.24
RECEIPTS		
Interest on Bank Balances	$ 125.57	
Income from Investments	7,362.14	
Dues Collected from Zoological Society Employees	6,506.46	$ 13,994.17
Contributed by the N. Y. Zoological Society:		
Income from Carnegie Endowment	$ 4,335.00	
General Income Fund (transfer)	5,665.00	10,000.00
		$ 173,929.41

EXPENDITURES

Physical Examinations	$ 55.00		
Refund of Dues	60.52		
Printing Book of Regulations	215.00		
Clerical Services	300.00		
Pension Payments	15,050.61	$	15,681.13

Investments at Cost:

Bonds and Mortgages:

13,000	B. & O. RR. Co., 1st Mtge., 4%, 1948	11,322.75	
13,000	B. & O. (P.L.E. & W.Va. RR.), 4% Ref., 1941	10,506.25	
6,000	Buffalo Gen. Elec., 1st. Mtge., 5% Ref., 1939	5,640.00	
12,000	C.B. & Q.R.R., Ill. Divn., 3½%, 1949	9,462.00	
1,400	Chi., Mil., St. Paul & Pac. RR. Co., 5%, 1975	1,073.75	
5,600	Chi., Mil., St. Paul & Pac. RR. Co., 5%, 2000	4,295.00	
5,000	Columbia Gas & Elec., 5% Gold, 1952	5,016.25	
12,000	Detroit Edison Co., 5% Ref., 1949	11,914.00	
17,000	I.C. & C.St.L. & N.O. RR. Co., 5% Joint, 1963	16,838.00	
7,000	Lackawanna Steel Co., 1st Mtge., 5%, 1950	6,847.75	
25,000	Liggett & Myers Tob. Co., 5%, 1951	24,455.00	
19,000	Mich. Cent. RR., 1st Mtge., 3½%, 1952	15,416.00	
10,000	Missouri Pac. RR. Co., 1st Ref., 5%, 1977	9,675.00	
2,000	N.Y. Cen. & H.R.R.R. (Lake Shore Col.), 3½%, 1998	$ 1,300.00	
5,000	Oregon Short Line RR., 5%, 1946	4,945.00	
10,000	Participating Bond & Mtge., Benenson Bldg. Corp., 5½%, 1934	10,000.00	
5,000	Twenty-third St. Ry. Impr. & Ref., 5%, 1962	4,825.00	
3,000	Union Pacific RR., 1st Mtge., 4%, 1947	2,486.25	$ 156,018.00

Uninvested balance, December 31, 1930:			
At National City Bank of New York	$ 1,668.29		
At Corn Exchange Bank Trust Co	561.99	$	2,230.28
		$	173,929.41

H. R. MITCHELL,
Asst. to Treasurer in Charge of Pensions
January 1, 1931.

CORNELIUS R. AGNEW,
Treasurer

PEAT, MARWICK, MITCHELL & CO.
ACCOUNTANTS AND AUDITORS
40 Exchange Place
New York, N. Y.

Certificate of Auditors

We have examined the books and accounts of the New York Zoological Society and of the "Pension Fund Income Account" for the year ended December 31, 1930, and report that the foregoing schedules have been prepared therefrom and, in our opinion, present the condition of the funds as at December 31, 1930, and the transactions relating to the funds of the Society and the Pension Fund Income Account for the year then ended.

The subscriptions, donations and dues reported as received, and the income from investments have been properly accounted for, and the securities and cash on hand at December 31, 1930, as shown in the accounts of the funds presented herewith, have been checked and found in order. Satisfactory vouchers have been produced for the expenditures.

(*Signed*) PEAT, MARWICK, MITCHELL & CO.

New York, N. Y.,
March 21, 1931.

Report of the Auditing Committee

OF THE

NEW YORK ZOOLOGICAL SOCIETY

To the President and Board of Managers
of the New York Zoological Society:

Dear Sirs:

We beg to report that we have examined the annual audit of the books and accounts of the New York Zoological Society for the year ended December 31, 1930, made by Messrs. Peat, Marwick, Mitchell & Co., accountants and auditors, and herewith submit the same to you as a complete and satisfactory audit of said books and accounts, including the General Endowment Fund, Special Endowment Funds, Income Fund, the Carnegie Pension Fund, the Pension Fund Income Account and the Privilege Account, it appearing that all expenditures and receipts of the various accounts are fully set forth therein, that the cash on hand and at the various depositories has been verified and found correct, and that all securities in which the funds of the Society are invested have been examined and found as reported.

Expenditures made through the Park Department of the City of New York have not been verified by this audit as such moneys have not passed through the hands of the Society, but are in due course checked and verified by the Comptroller of this City.

Respectfully submitted,

WILLIAM W. NILES, *Chairman.*
GEORGE C. CLARK,

April 1st, 1931

Department of Parks, Bronx—City of New York

NEW YORK ZOOLOGICAL PARK

Code N. D. P. 359 C—Construction and equipment of Comfort Station near Lion House.

Approved by Board of Estimate and Apportionment, March 15, 1929, Calendar No. 322A	$35,000.00
EXPENDITURES DURING 1929	
Stoughton & Stoughton, preliminary drawings and specifications	350.00
Unexpended balance as of December 31, 1930	$34,650.00

Code N. P. D. 359 D—Reconstruction and Improvement of Walks System in Bronx Park, Zoological Garden.

Approved by Board of Estimate and Apportionment, June 13, 1930, Calendar No. 99	$50,000.00
EXPENDITURES DURING 1930	
Engineers, Pay Roll	260.00
Unexpended balance as of December 31, 1930	$49,740.00

JOHN H. BERGEN, *Chief Clerk*,
Department of Parks, Borough of Bronx.

Department of Parks, Manhattan—City of New York

AQUARIUM — ALTERATIONS

Code N. D. P. 4 D—General Construction and equipment of additional exhibition space, including Architect's Services.

Approved by Board of Estimate and Apportionment, March 15, 1929		$60,000.00
EXPENDITURES		
Contract, H. DeB. Parsons, Architect	$4,350.00	
Contract, Arnold M. Diamond & Co.—Additional exhibition tanks	18,768.00	
Contract, Arnold M. Diamond & Co.—Repairs to west wall, replacing beams on main floor and gallery level, removing stack and work incidental thereto	7,030.00	
Contract, Hygrade Plumbing Co.—Plumbing	2,490.00	32,638.00
Unexpended balance as of December 31, 1930		$27,362.00

JAMES A. SHERRY, *Chief Clerk.*
Department of Parks, Borough of Manhattan.

January 1, 1931.

Subscriptions to the General Endowment Fund of the New York Zoological Society

($5,000 and over)

Ogden Mills	$60,000.00
Mrs. Frederick F. Thompson	55,000.00
E. C. Converse	50,000.00
Edwin Gould	40,000.00
Percy R. Pyne	35,000.00
George F. Baker	25,000.00
James B. Ford	25,000.00
T. Coleman du Pont	25,000.00
Maria DeWitt Jesup	25,000.00
Cleveland H. Dodge	25,000.00
Jacob H. Schiff	25,000.00
Samuel Thorne	25,000.00
Charles E. Rhinelander	23,222.15
Watson B. Dickerman	20,000.00
J. P. Morgan	20,000.00
Lispenard Stewart	12,500.00
Frank W. Kitching	10,329.16
Edward S. Harkness	10,000.00
James J. Hill	10,000.00
Henry Iden	10,000.00
Levi P. Morton	10,000.00
John D. Rockefeller, Jr.	10,000.00
Edward Russ	10,000.00
Phoebe Anna Thorne	10,000.00
C. F. Dieterich	6,000.00
Mortimer L. Schiff	6,000.00
Abram G. Nesbit	5,500.00
John D. Archbold	5,000.00
Samuel P. Avery	5,000.00
Frederick G. Bourne	5,000.00
Robert S. Brewster	5,000.00
John L. Cadwalader	5,000.00
Andrew Carnegie	5,000.00
Hugh J. Chisholm	5,000.00
George C. Clark	5,000.00
George J. Gould	5,000.00
Archer M. Huntington	5,000.00
George W. Perkins	5,000.00
Nelson Robinson	5,000.00
John A. Roebling	5,000.00
F. K. Sturgis	5,000.00
Henry A. C. Taylor	5,000.00
Edwin Thorne	5,000.00
Emily Trevor	5,000.00

Contributions to Special Funds of the New York Zoological Society

($5,000 and over)

Harrison Williams	$181,268.31
Mortimer L. Schiff	47,390.00
Andrew Carnegie	31,000.00
George F. Baker	26,500.00
Jacob H. Schiff	22,300.00
George D. Pratt	20,000.00
Edward S. Harkness	19,000.00
Samuel Thorne	18,950.00
Anthony R. Kuser	16,200.00
Marshall Field	16,100.00
George J. Gould	15,300.00
Cleveland H. Dodge	15,125.00
Robert S. Brewster	15,000.00
John D. Rockefeller	15,000.00
E. C. Converse	14,000.00
Percy R. Pyne	12,450.00
Lispenard Stewart	10,250.00
John D. Archbold	10,100.00
Vincent Astor	10,000.00
Mrs. Andrew Carnegie	10,000.00
Clarence Dillon	10,000.00
Mrs. Frederick F. Thompson	10,000.00
William Rockefeller	9,000.00
Charles F. Dieterich	8,800.00
Levi P. Morton	8,500.00
Charles T. Barney	7,500.00
F. Augustus Schermerhorn	7,500.00
Cornelius Vanderbilt	7,500.00
C. Ledyar Blair	6,750.00
A. Barton Hepburn	6,500.00
Mrs. Finley J. Shepard	6,400.00
John Cadwalader	6,200.00
Oliver H. Payne	6,000.00
Henry A. C. Taylor	6,000.00
William K. Vanderbilt	6,000.00
William C. Whitney	6,000.00
Nelson Robinson	5,900.00
John S. Barnes	5,750.00
Frederick G. Bourne	5,500.00
J. P. Morgan	5,500.00
Emerson McMillan	5,280.00
Oswald Ottendorfer	5,250.00
William D. Sloane	5,250.00
Edward J. Berwind	5,000.00
William E. Dodge	5,000.00
Robert Goelet	5,000.00
C. P. Huntington	5,000.00
Mrs. John B. Trevor	5,000.00
Mrs. Antoinette E. Wood	5,000.00

LIST OF ACCESSIONS BY THE

New York Zoological Society

AT THE ZOOLOGICAL PARK

1930

BY GIFT

ADAMS, DR. E. C. L., Columbia, S. C.:
1 Water Snake, 1 Canebrake Rattlesnake, 1 Hog-Nosed Snake. Total, 3 Specimens.

ALLEN, DR. A. A., Ithaca, N. Y.:
Red-Tailed Hawk.

ALLEN, HARRY S., New York City:
Java Macaque.

AMERICAN MUSEUM OF NATURAL HISTORY, New York City:
Rhinoceros Iguanas (2 specimens).

AMERICAN SOCIETY FOR THE PREVENTION OF CRUELTY TO ANIMALS, New York City:
Macaque.

ANDERSON, MRS. A. E., Katonah, N. Y.:
1 Cuban Conure, 1 Yellow-Faced Conure.

AQUARIUM SPECIALTY COMPANY, New York City:
1 Rose-Breasted Grosbeak, 1 Red-Eyed Towhee.

ARISLA, FRANCISCO, New York City:
Soft-Shelled Turtle.

ASTOR, VINCENT, GALAPAGOS EXPEDITION, New York City:
10 Land Iguanas, 8 Galapagos Tortoises, 1 Galapagos Snake, 2 Squirrels, 7 Galapagos Hawks. Total, 28 specimens.

BABAIAN, EDWARD, New York City:
Wood Turtle.

BANANA SALES CORPORATION, New York City:
1 Iguana, 1 Red-Winged Blackbird.

BARBER, MRS. E. J., New York City:
Drill.

BARBOUR, DR. THOMAS, Cambridge, Mass.:
2 Iguanas, 5 Marine Toads, 27 Land Crabs. Total, 34 specimens.

BARDES, JOHN, New York City:
Ferret.

BARRETT, MRS. WILLIAM F., Rye, N. Y.:
Alligators (3 specimens).

BENDELL, MRS. LEONARD, Pleasant Plains, S. I., N. Y.:
Raccoon.

BERNHARDT, FRANK, Mt. Vernon, N. Y.:
Snowy Owl.

BIGGS, ALFRED, New Rochelle, N. Y.:
White-Faced Sapajou.

BIOLOGY DEPARTMENT, EVANDER CHILDS HIGH SCHOOL, New York City:
Box Turtle.

BLEICHER, CARL, New York City:
Tarantula.

Bookstaver, George H., Jersey City, N. J.:
Coati Mundi.
Borden, Richard H., Brooklyn, N. Y.:
2 Garter Snakes, 2 Water Snakes, 1 Ring-Necked Snake. Total, 5 specimens.
Borson, Miss Elaine Sylvia, New York City:
White Rabbit.
Broadfield, Captain C. J., Malone, N. Y.:
Bald Eagle.
Brothwaite, Mrs. A., New York City:
Mourning Dove.
Brown, Miss Maud M., New York City:
Red-Headed Cardinal.
Brown, R., S. S. *Prometheus*, Brooklyn, N. Y.:
Java Wild Cat.
Browning, William H., Rye, N. Y.:
Virginia Cardinals (2 specimens).
Buck, Mrs. F. L., Potsdam, N. Y.:
White-Nosed Coati Mundi.
Buckles, F. W., Brooklyn, N. Y.:
Javan Hill Myna.
Burke, John, New York City:
Alligator.
Camp Molloy Association, Brooklyn, N. Y.:
4 Water Snakes, 2 Black Snakes.
Cararro, James, New York City:
Java Macaque.
Carpenter, S. S. *Sitoe Bondo*, Brooklyn, N. Y.:
1 European Kestrel, 1 Egyptian Kite.
Chapman, Clarence E., New York City:
Gray Squirrel.
Christensen, H., New York City:
European Quail (2 specimens).
Church, Mrs. A., New York City:
Troupial.
Clancey, Robert, New York City:
Alligators (2 specimens).
Clark, John B., Alpine, N. J.:
Milk Snake.
Coe, Miss M. S., New York City:
1 Japanese Red-Bellied Hill-Tit, 2 European Linnets.
Colloton, John, New York City:
Screech Owl.
Conway, A., New York City:
Box Tortoise.
Conservation Department, Albany, N. Y.:
Holboell Grebe.
Corrigan, Joseph E., New York City:
1 Gray Squirrel, 1 Fox Squirrel.
Crimmins, Colonel M. L., Fort Bliss, Texas:
6 Horned Lizards, 1 Spotted Lizard, 1 Zebra-Tailed Lizard, 1 Collared Lizard, 1 Desert Spotted Lizard. Total, 10 specimens.
Crocker Laboratory, Columbia University, New York City:
3,175 White Rats, 927 White Mice.
Cunham, Frank, New York City:
Horned Toads (4 specimens).

Davidson, Mrs. A. R., Ridgewood, N. J.:
Mallard Ducks (11 specimens).
Davis, John Howard, New York City:
Chicken Terrapin.
Degon, L. A., Greenwich, Conn.:
Mexican Gray Squirrel.
Delaney, Thomas, New York City:
Alligator.
Denis, Armand G., Thompson, Conn.:
Indian Wild Cats (2 specimens).
De Rosa, Lewis, New Rochelle, N. Y.:
Red Fox.
Dexter, Miss Betty, New York City:
Praying Mantis (20 specimens).
Dickey, Dr. and Mrs. H. S., New York City:
1 Zigzag Bittern, 2 Gray-Winged Trumpeters, 1 Troupial, 1 Lesser Razor-Billed Curassow, 2 South American Stone Plovers, 2 Lesser Olive Guans, 1 Sun Bittern, 1 Sapajou Monkey, 1 Red Howling Monkey. Total, 12 specimens.
Doulberry, Frank R., New York City:
Green Monkey.
Dow, George E., Howard Beach, S. I., N. Y.:
Blue-and-Yellow Macaw.
Durand, Earl, Metzler, Percy and Gambino, Fred, White Plains, N. Y.:
Copperhead Snakes (6 specimens).
Dutton, Mrs. B., New York City:
Rhesus Monkey.
Dyott, Commander George Miller, New York City:
1 Young Indian Elephant, 1 Tiger, 2 Leopards, 2 Himalayan Bear Cubs, 1 Hoolock Gibbon, 1 Indian Peafowl. Total, 8 specimens.
Erde, L., New York City:
Herring Gull.
Erwin, M. E., Tulsa, Okla.:
Skinks (2 specimens).
Evans, Dr. E. M., New York City:
Diamond-Back Terrapins (2 specimens).
Fairweather, Mrs. G., New York City:
Hooded Sapajou.
Farrell, John, Albany, N. Y.:
Holboell Grebe.
Fee, Fred, Golva, N. D.:
Western Rattlesnake.
Feldrapp, Mrs. William, Stapleton, S. I., N. Y.:
Mongoose.
Ferris, Lester E., Armond, N. Y.:
Copperhead Snake.
Firneisz, Mrs. Fernando, New York City:
Rabbit.
Fischer, Miss F. D., New York City:
Indian Ring-Necked Parrakeet.
Fitzgerald, Mrs. Chester E., Port Chester, N. Y.:
White-Throated Sapajou.
Forson, J. S. Garrison, N. Y.:
Spotted Salamander.
Gallup, Miss Jessie K., Upper Montclair, N. J.:
Gray Squirrel.

GAMBINO, FRED, METZLER, PERCY and DURAND, EARL, White Plains, N. Y.:
Copperhead Snakes (6 specimens).
GEORGE, IRA D., Tela, Honduras:
1 Yellow-Spotted Rat Snake, 2 Green-Headed Tree Snakes, 2 Brown Racers, 1 Vine Snake. Total, 6 specimens.
GILLAM, ARTHUR L., Flushing, L. I., N. Y.:
2 Copperhead Snakes, 1 Rattlesnake.
GILLESPIE, CHARLES H., New York City:
Alligator.
GJOERLOFF, HAROLD E., New York City:
European Kestrels (2 specimens).
GRACE STEAMSHIP COMPANY, New York City:
Snowy Egrets (2 specimens).
GRAHAM, MRS. J. A., East Orange, N. J.:
Java Macaque.
GRAHAM, MRS. SINCLAIR, Rye, N. Y.:
Kinkajou.
GREENHALL, ARTHUR L., New York City:
8 Cuban Boas, 2 Cuban Whip Snakes, 2 Spreading Snakes, 1 Cuban Toad, 1 Cuban Terrapin, 2 Water Snakes, 1 Hutia. Total, 17 specimens.
GREENOP, ALBERT H., Valhalla, N. Y.:
Water Snakes (2 specimens).
GROTH, MRS. CHRISTIAN F., New Rochelle, N. Y.:
Clapper Rail.
HALSTEAD, MRS. J. M., New York City:
4 African Silverbills, 2 White-Headed Mannikins, 2 Strawberry Finches, 1 Bengalee, 1 Golden-Breasted Waxbill, 2 Green Grass Parrakeets, 1 Rainbow Bunting. Total, 13 specimens.
HANFELD, MRS. D., New York City:
Alligator.
HARDY, MR. and MRS. ANTON G., in cooperation with Commander DYOTT, G. M., New York City:
1 young Indian Elephant, 1 Tiger, 2 Leopards, 2 Himalayan Bear Cubs, 1 Hoolock Gibbon. Total, 7 specimens.
HARKNESS, MRS. EDWARD, New York City:
Javan Hill Myna.
HARRIS, E., Astoria, L. I., N. Y.:
Short-Eared Owl.
HAUFTON, MRS. F., Wisner, N. Y.:
Rhesus Monkey.
HARWOOD, MRS. C. E., New York City:
Troupial.
HELLER, MISS LOUISE, Hicksville, L. I., N. Y.:
Prairie Dog.
HELMEL, FRANK, Hoboken, N. J.:
Gila Monster.
HENSEL, A., New York City:
Alligators (3 specimens).
HERSEY, GEORGE N., JR., Pelham Manor, N. Y.:
White-Nosed Coati Mundi.
HOE, R., & COMPANY, New York City:
American Barn Owl and three young.
HOLIDAY, MISS LORAINE, Stamford, Conn.:
Opossums (2 specimens).

HOLLMAN, WALTER, Mt. Vernon, N. Y.:
3 Spotted Turtles, 1 Painted Turtle, 1 Musk Turtle. Total, 5 specimens.
HORN, ARTHUR, Bellmore, L. I., N. Y.:
Genet.
HUNTIN, MRS. H., Walden, N. Y.:
Rhesus Monkey.
HURST, MISS FANNIE, New York City:
Woolly Monkey.
HUSTIS, MRS. J. H., JR., Scarsdale, N. Y.:
Blue Grass Parrakeets (2 specimens).
IVES, MRS. A. H., New York City:
Mexican Gray Squirrel.
JACOBS, M. J., Brooklyn, N. Y.:
Raccoon.
JOHNSTON, MASTER WILLIAM, Scarsdale, N. Y.:
Alligator.
KANNER, A. D., New York City:
Slider Terrapin (3 specimens).
KARL, MRS. A. H., Mt. Vernon, N. Y.:
Green Grass Parrakeets (3 specimens).
KELLEY, WALTER E., New York City:
Opossum.
KEPPLER, CARL, New York City:
1 Banded Water Snake, 1 Painted Turtle, 3 Box Turtles, 1 Box Tortoise.
Total, 6 specimens.
KING, H. C., New York City:
King Snakes (2 specimens).
KIUTTU, CHARLES, New York City:
Hog-Nosed Snake.
KRESS, SAMUEL, Limon, Costa Rica:
Luminous Elaters (20 specimens).
KURR, FRED L., Rye, N. Y.:
Alligator.
KUSER, MRS. ANTHONY R., Bernardsville, N. J.:
European Ravens (2 specimens).
LA LANDE, J., Tuckahoe, N. Y.:
Canary.
LANE, DR. VERNON E., New York City:
Raccoon.
LANI, MRS. L., New York City:
Virginia Rail.
LAWRENCE SCHOOL NATURE CLUB, Hewlett, L. I., N. Y.:
Northern Shrike.
LEAMAN, MRS. W. E., Freeport, L. I., N. Y.:
Long-Armed Baboon.
LEATHER DE LUXE COMPANY, New York City:
Tegu.
LEE, MRS. H. C., Cornwall, N. Y.:
Green Monkey.
LEO, HARRY, New York City:
Tarantula.
LEONARD, MRS. CATHERINE, Brooklyn, N. Y.:
Alligator.
LEVY, LESTER, New York City:
Turtles (2 specimens).

LINTZ, MRS. WILLIAM, Brooklyn, N. Y.:
Serval.
LIVINGSTONE, JOHN G., JR., Lawrence, L. I., N. Y.:
Gila Monster.
LOVE, SAMUEL A., New York City:
American Egret.
LOWELL, JOSEPH, New York City:
Skunk.
MCREYNOLDS, G. B., Fort Bliss, Texas:
Horned Toad.
MARA, WELLINGTON T., New York City:
Alligator.
MARANO, CHARLES S., New York City:
Tovi Parrakeet.
MARKLEY, JAMES D., New York City:
Alligators (2 specimens).
MEAD, GEORGE D., White Plains, N. Y.:
Marmoset.
MENKEN, ARTHUR VON B., New York City:
Peccary.
METCALF, JESSE, Georgetown, S. C.:
Great Horned Owls (2 specimens).
METZLER, PERCY, GAMBINO, FRED and DURAND, EARL, White Plains, N. Y.:
Copperhead Snakes (6 specimens).
MILLAR, GEORGE S., Portchester, N. Y.:
Barn Owls (3 specimens).
MILLER, WILLIAM F., Monticello, N. Y.:
Wild Cat.
MONTGOMERY, FRANK R., Lake Como, Fla.:
Florida Rattlesnake.
MURPHY, C. M., West Brighton, S. I., N. Y.:
Green Monkey.
NATIONAL COKE AND COAL COMPANY, New York City:
American Barn Owl.
NEW YORK AQUARIUM, New York City:
1 Tree Lizard, 1 Iguana.
NEW ROCHELLE HUMANE SOCIETY SHELTER, INC., New Rochelle, N. Y.:
1 Rhesus Monkey, 1 Snapping Turtle.
NEW YORK STATE MUSEUM, Albany, N. Y.:
Canada Porcupine.
NOTH, MRS. JOSEPH, Woodside, L. I., N. Y.:
Woodchuck.
NYE, MRS. H. C., Tarrytown, N. Y.:
Opossum.
OAKES, MRS. JENNIE, New York City:
Alligator.
PALM, MRS. M., Mt. Vernon, N. Y.:
English Ring-Necked Pheasant.
PALMER, W. J., S. S. *Minnetonka*, New York City:
European Water Rail.
PANTALIO, JOSEPH, Mt. Vernon, N. Y.:
Alligators (2 specimens).
PARADIES, G. R., New York City:
Alligator.

PLIMPTON, CALVIN H., New York City:
Horned Toads (3 specimens).
POHLMAN, MRS. G. B., Yonkers, N. Y.:
1 Lesser Sulphur-Crested Cockatoo, 2 Box Tortoises, 1 Painted Turtle. Total, 4 specimens.
POOLE, ANDREW M., New York City:
Wood Turtle.
PORST, S. P., Peekskill, N. Y.:
Rhesus Monkey.
RASCHE, HARRY, Armonk, N. Y.:
Alligators (3 specimens).
RINTELEN, JOSEPH C., JR., Pittsburgh, Pa.:
2 Rattlesnakes, 2 Copperhead Snakes.
ROBINS, B. T., S. S. *Baracoa*, Brooklyn, N. Y.:
South American Boa Constrictor.
ROBINSON, MRS. EDWARD, New York City:
2 Cut-Throat Finches, 2 Bengalees, 1 St. Helena Waxbill, 2 Zebra Finches. Total, 7 specimens.
RUDERMAN N., Brooklyn, N. Y.:
Hog-Nosed Snake.
RUHL. DR. HENRY CLAY, New York City:
Guinea Pigs (7 specimens).
SADOWSKY, MORRIS, New York City:
Turkey Vulture.
SAMUELS, WILLIAM, New York City:
Mongoose.
SAN DIEGO ZOOLOGICAL SOCIETY, San Diego, Calif.:
Trap Door Spiders and Nests (2 specimens).
SAUNDERS, WILLIAM L., New York City:
Weeper Sapajou.
SCHAEFER, JOHN K., New York City:
King Snakes (5 specimens).
SCHEEREN, CARL H., New York City:
Gray Fox.
SCHEUBNER, MRS. F., St. George, S. I., N. Y.:
Mona Monkey.
SCHULTZ, MRS. CARL H., Port Washington, L. I., N. Y.:
Squirrel Monkey.
SCOTT, JOHN, Warrenton, N. C.:
2 Copperhead Snakes, 1 Green Snake, 1 Water Snake, 2 King Snakes, 2 Hog-Nosed Snakes. Total, 8 specimens.
SEEHAUSEN, HERMAN, Brooklyn, N. Y.:
European Goldfinch.
SEXTON, MRS. R. W., Greenwich, Conn.:
Common Macaque.
SHAPIRO, MISS DOROTHY, New York City:
Rabbit.
SHOPINSKY, A., Purchase, N. Y.:
Opossum and one young.
SIBUN, JOHN, New York City:
Woodchuck.
SIEMERING, EDWARD A., Flushing, L. I., N. Y.:
Alligator.
SIMPSIN, E., S. S. *American Banker*, New York City:
European Heron.

SLAYTON, THOMAS T., S. S. *Otho*, New York City:
Mona Monkey.
SMALL, CAPTAIN CHARLES E., Lynbrook, L. I., N. Y.:
Galapagos Dove.
SPARKS, P. W., New York City:
Florida Rattlesnake.
SPRAGUE, MISS AUDREY MAE, North Arlington, N. J.:
Squirrel Monkey.
STADT, MRS. G., New York City:
Green Shell Parrakeets (2 specimens).
STAGG PATROL, TROOP 3, B. S. A., Scarsdale, N. Y.:
Alligators (2 specimens).
ST. ANGELO, S., Noroton, Conn.:
King Snakes (2 specimens).
STEIN, WALTER, Woodside, L. I., N. Y.:
Painted Turtles (2 specimens).
STOLL, FRED, New York City:
Rhesus Monkey.
STRAUSS, MRS. HELENE, New York City:
Red-Eyed Towhee.
SWANSON, MISS, New York City:
1 European Blackcap Warbler, 1 Pintail Whydah.
TABENHOUSE, B., New York City:
1 Rattlesnake, 2 Copperheads.
TAYLOR, MRS. J. S., New York City:
Greenfinch.
TEIBER, ALWIN, Scarsdale, N. Y.:
Alligators (2 specimens).
THAYER, TIFFANY, New York City:
Indian Python.
THORNBERRY, HARRY, Astoria, L. I., N. Y.:
Alligator.
THORNE, MRS. W. V. S., New York City:
Blue Solitaire.
THURSTON, MRS. ADELINE, Yonkers, N. Y.:
Blue Jay.
VOGT, WILLIAM, Hastings-on-Hudson, N. Y.:
Fence Swift.
VON BAUMANN, DR. C., S. S. *Santa Teresa*, Brooklyn, N. Y.:
Ocelot.
VON KERSBERG, HARRY E., Scarsdale, N. Y.:
Alligator.
WAGNER, RICHARD L., New Rochelle, N. Y.:
Screech Owl.
WAGNER, WILLIAM, Brooklyn, N. Y.:
WAINERDI, HAROLD, New York City:
European Quail.
Spotted Turtle.
WALTER, E. K., Brooklyn, N. Y.:
Horned Lizards (2 specimens).
WASSER, MISS WINIFRED, New York City:
Screech Owl.
WEHNER, GEORGE, New York City:
Boa Constrictors (3 specimens).

Weigand, M. W., New York City:
Saw-Whet Owl.
Wheeler, Miss Margaret A., Troy, N. Y.:
Horned Lizard.
Whitney South Sea Expedition, through Murphy, Dr. Robert Cushman, New York City:
Tree Kangaroo.
Wild, Miss Marie, New York City:
Gray-Breasted Parrakeet.
Williams, Harrison, New York City:
White-Winged Barn Owls (2 specimens).
Wise, S. M., Stamford, Conn.:
Barn Owl.
Wood, George C., New York City:
Virginia Rail.
Yager, Peter, New York City:
Panama Parrot.
Yerganian, Miss, New York City:
Green Monkey.
Ziegfeld, Miss Patricia, Hastings-on-Hudson, N. Y.:
1 Red-Faced Gouldian Finch, 1 Gray Java Sparrow, 2 Orange-Cheeked Waxbills, 1 Zebra Finch, 1 Taha Weaver, 2 Cordon Bleus. Total, 8 specimens.

National Collection of Horns and Heads

BY GIFT

Fuguet, Howard, Philadelphia, Pa.:
Prong-Horned Antelope (*Antilocapra americana*). Mounted Head.
Impalla (*Aepyceros melampus*). Mounted Head.

BY PURCHASE

Blackbuck (*Antelope cervicapra*). Mounted Head.
Stone Mountain Sheep (*Ovis stonei*). Skull, Horns and Head Skin.
Gaur (*Bos gaurus*). Mounted Head.
Hunter's Hartebeest (*Damaliscus hunteri*). Mounted Head.

Library

BY GIFT

British Museum (Natural History), London:
Diptera of Patagonia and South Chile, Part I. Crane-Flies, by C. P. Alexander.
Diptera of Patagonia and South Chile, Part II, Fasc. 1, Psychodidae, by A. L. Tonnoir.
Diptera of Patagonia and South Chile, Part II, Fasc. 2, Blepharoceridae, by F. W. Edwards.
Carnegie Institution of Washington, Washington, D. C.:
Year Book, 1929.
Grant, Madison, New York City:
British Birds, Vol. III, by Archibald Thorburn.
Geographical Review, Vol. XIX.
Koenig, Alexander, Bonn, Germany:
Avifauna Spitzbergensis, by Alexander Koenig.
Portielje, A. F. J., Amsterdam:
Zeewater Aquarium en Terrarium, by A. F. J. Portielje.
United Fruit Company, New York City:
Eighteenth Annual Report, Medical Department.

VANDERBILT, WILLIAM K., Huntington, N. Y.:
Bulletin of the Vanderbilt Marine Museum, Vol. II, by Lee Boone.
Bulletin of the Vanderbilt Marine Museum, Vol. III, by Lee Boone.

Plants

BENIASH, MRS. H., New York City:
2 Rubber Plants (*Ficus elastica*).
BERGQUITT, E., New York City:
1 Rubber Plant (*Ficus elastica*).
DA PONTE, MRS. DURANT, New York City:
1 *Dracena massangeana.*
DEARNLEY, MRS. A., New York City:
1 Rubber Plant (*Ficus elastica*).
FOGELSON, MRS. SIMON, New York City:
1 Rubber Plant (*Ficus elastica*).
GALINA, MRS., New York City:
1 *Dracena massangeana.*
GELFAND, MRS. S., New York City:
1 Rubber Plant (*Ficus elastica*).
GETTO, MRS. AMOS, New York City:
2 Rubber Plants (*Ficus elastica*).
HELPGOD, MRS. ALEXANDER, New York City:
1 Rubber Plant (*Ficus elastica*).
HOWARD, MRS. H. R., New York City:
1 Rubber Plant (*Ficus elastica*).
MINGST, FRED, New York City:
1 *Epiphyllum truncatus.*
1 *Dracena australis.*
1 *Dracena hookeriana.*
MIROPOLSKY, MR., New York City:
2 Rubber Plants (*Ficus elastica*).
NADELMAN, MRS., New York City:
2 Rubber Plants (*Ficus elastica*).
PSISPER, MRS. New York City:
1 Rubber Plant (*Ficus elastica*).
ZIMMERMAN, MRS. R., New York City:
1 *Kentia Belmoreana.*

LIST OF ACCESSIONS BY THE

New York Zoological Society

AT THE AQUARIUM

1930

ABRAMS, MASTER ROBERT, New York City:
Small Alligator.

ADAMS, MR. A. G., Boothbay Harbor, Maine:
Harbor Seals (2 specimens).

AQUARIENFISCH IMPORT & EXPORT COMPANY, Wandsbek, Germany:
Young Scalare (24 specimens).

BACON, MR. DANIEL C., New York City:
Mantis Shrimp.

BAHR, MASTER RUDOLPH, Brooklyn, N. Y.:
Box Turtles (2 specimens).

BENNETT, MR. WILLIAM C., Redbank, N. J.:
Spotted Turtles (2 specimens), Musk Turtle, Natrix, Water Snakes (2 specimens), Black-sided Dace (100 specimens), Black-banded Sunfish (18 specimens).

BIELINE, MR. GEORGE, Hempstead, L. I.:
Small Alligator.

BOUZAKIS, MR. EMANUEL, Brooklyn, N. Y.:
Wood Turtle.

BRISTOL, PROF. C. L., New York City:
Collection of lantern slides.

BRUNNER, MRS. M., Long Island City, N. Y.:
Small Alligator.

BUCHBAUM AND SONS, M., New York City:
Loggerhead Turtle.

BURR, MRS. E., St. Albans, L. I.:
Small Sea Turtle.

CARPENTER, MRS. J., Long Beach, L. I.:
Small Alligators (2 specimens).

CHRISTENSEN, MR. C. J., Springfield, L. I.:
Snapping Turtle.

CLOLE, MASTER FORMAN, New York City:
Snapping Turtle.

COOPER, DR. HENRY, New York City:
Small Alligator.

CORCORAN, MR. GEO. EUSTIS, New York City:
Sea Anemones (14 specimens).

DAVIS, MR. WILLIAM, Greenpoint, L. I.:
Large Blackfish.

DE BERNARDIS, MR. FRANK and SCHWARTZ, MR. JOHN, New York City:
Snapping Turtle.

DUDLEY, MISS EDITH S., New York City:
Small Alligator.

Durchhalter, Mrs., Brooklyn, N. Y.:
Box Tortoise.
Dyer, Mr. Henry R., Brooklyn, N. Y.:
Horseshoe Crab.
Ergottino, Mr. Angelo, New York City:
Redbacked Salamander.
Erickson, Mr. Harry, Keyport, N. J.:
Horseshoe Crab.
Fastook, Mr. James, Bayonne, N. J.:
Guppies (7 specimens).
Fleet, Mr. D. J., Westbury, L. I.:
Box Tortoise, Bull Frog.
Fleischer, Mr. Ernst, Passaic, N. J.:
Bull Frogs (2 specimens), Congo Eels (3 specimens).
Foley, Miss Mary, Hoboken, N. J.:
Small Alligator.
Foster, Mr. Thomas, W. Lynbrook, L. I.:
Queen Crab.
Freierman, Mr. H., New York City:
Painted Turtle.
Grant, Major Chapman, San Juan, Porto Rico:
Giant Land Fiddler Crabs (13 specimens).
Gregson, Master Frank, Jr., New York City:
Small Alligator.
Grice, Captain L. O., Fort Screven, Ga.:
Large Loggerhead Turtle.
Hansen, Messrs. Harry and Nicholas, Brooklyn, N. Y.:
Sea Horses (2 specimens).
Harty, Mr. Maurice, Brooklyn, N. Y.:
Sea Gull.
Hays, Mrs., New York City:
Small Alligator.
Heagy, Mr. Walter, Jamaica, L. I.:
Large Snapping Turtle.
Heninger, Mr. P., New York City:
Scalare (4 specimens).
Herd, Mr. N. R., New York City:
Small Alligator.
Hermann, Mrs. F., Woodside, L. I.:
Small Alligators (2 specimens).
Hines, Mr. John H., Brooklyn, N. Y.:
Angler.
Hoffman, Mr. J. A., Douglaston, L. I.:
Small Alligators (2 specimens).
Hoffman, Mr. Herman, Brooklyn, N. Y.:
Box Tortoise.
Hogan, Mr. John C., New York City:
Small Alligator.
Holden, Miss Jean E., New York City:
Small Alligator, Young Turtles (2 specimens).
Imhof, Mr. John J., New York City:
Painted Turtle.
Jenkins, Mr. R. G., Staten Island, N. Y.:
Lobster.

Jong, Mr. John, Staten Island, N. Y.:
Box Tortoise.
Kardos, Mr. A., New York City.:
Box Tortoise.
Ketchum, Corporal Archie, Brooklyn, N. Y.:
Loggerhead Turtle.
Kilgannon, Miss Mary, New York City:
Small Alligator.
Kimball, Miss Isabel M., Brooklyn, N. Y.:
Small Catfish.
Koch, Mr. Leo, New York City:
Diamond-back Terrapin.
Lamantia, Mr. and Mrs. James, Brooklyn, N. Y.:
Iguana.
Langhaus, Mr. Herman, Jr., Brooklyn, N. Y.:
Box Tortoise.
Legg, Mr. J. J., Darien, Conn.:
Snapping Turtle.
Litaud, Mr. Henry, Teaneck, N. J.:
Anolis.
Mackay, Mr. Donald, New York City:
Small Alligator.
Maier, Mr. John, New York City:
Painted Turtle.
Martin, Mrs. M., Lincoln Park, N. J.:
Small Alligator.
Martorano, Mrs. Salbatore, Brooklyn, N. Y.:
Box Tortoise, Bull Frog.
Mathews, Mr. A. and Miller, Mr. G., Highlands, N. J.:
Yellow Eel.
Matthews, Mr. William F., Brooklyn, N. Y.:
Gold Fish.
McCarthy, Mr. E. H., Jersey City, N. J.:
Small Alligator.
Mesler, Mr. Harry R., Plainfield, N. J.:
Small Alligator.
Middleton and Carman, New York City:
Small Alligator.
Minervino, Mr. Vito, Brooklyn, N. Y.:
Small Alligators (2 specimens).
Morche, Mr. E. C., New York City:
Flounder.
Moser, Mr. Chas., New York City:
Kemps Turtle.
Myers, Mr. William N., New York City:
Small Alligator.
Napoliello, Mrs. J., Newark, N. J.:
Small Alligator.
Nelson, Master Homer, Flushing, L. I.:
Small Alligator.
Nunziato, Mr. Lawrence, Brooklyn, N. Y.:
Small Alligator.
O'Brien, Mr. Edward, New York City:
Small Alligator.

O'Brien, Mr. Edward, New York City:
Small Alligator.
O'Connor, Mr. Timothy, New York City:
Small Alligator.
Osenkop, Master Richard, New York City:
Small Alligator.
Pardoe, Dr., Bound Brook, N. J.:
Painted Turtles (12 specimens).
Perricane, Mr. Joseph, New York City:
Small Alligators (6 specimens).
Perry, Mr. Lewis, New York City:
Wood Turtles (2 specimens).
Preservel, Mr. Michael, New York City:
Wood Turtle.
Quattrocchi, Miss Effie, New York City:
Horned Toad.
Rath, Mrs. V., New York City:
Small Alligator.
Richey, Mr. William, New York City:
Bull Frogs (3 specimens), Leopard Frogs (2 specimens), Painted Turtles (4 specimens).
Rizzio, Mr. Frank, Brooklyn, N. Y.:
Box Tortoise, Tadpoles (2 specimens).
Roberts, Mr. Michael, New York City:
Small Alligator.
Rosenfeld, Master Aaron, Brooklyn, N. Y.:
Painted Turtle.
Scherer, Mrs. J., Ozone Park, L. I.:
Snapping Turtle.
Schiessn, Mrs., New York City:
Painted Turtles (2 specimens).
Schmidt, Dr. Waldo, Washington, D. C.:
Loggerhead Turtles (2 specimens).
Serio, Mr. Anthony, Long Island City, N. Y.:
Green Turtle.
Sliva, Mr. Frank, New York City:
Young Turtles (2 specimens).
Sliva, Master Walter, New York City:
Water Snakes (3 specimens).
Smith, Mr. Geo., Jersey City, N. J.:
Box Tortoise.
Smith, Mr. John, New York City:
Painted Turtle.
Srulowitz, Mr. Abe, Brooklyn, N. Y.:
Box Tortoise.
Steinkert, Mr. Conrad, Jersey City, N. J.:
Box Tortoise.
Stewart, Miss J. L., Brooklyn, N. Y.:
Small Alligator.
Szurley, Master Teddy, New York City:
Small Turtle.
Thomas, Mr. H. B., Springlake, N. J.:
Loon.
Till, Mr. Harry, Douglaston, L. I.:
Small Alligators (2 specimens).

TRAUTMANN, MR. FRED, Maplewood, N. J.:
Horseshoe Crab.
TURKELL, MR. ABRAHAM, New York City:
Small Alligator.
TURNER, MISS V., Brooklyn, N. Y.:
Small Alligator.
UBAN, MR. PETER, New York City:
Sea Mouse.
VAILE, MR. EDWARD, Orient, L. I.:
Large Blackfish, Sea Eel.
WALKER, HON. JAMES J., New York City:
Small Alligator.
WEEKS, MR. W., Astoria, L. I.:
Small Alligator.
WEIL, MRS. MARCELLO, Sea Cliff, S. I.:
Small Alligator.
WENGLEIN, MR. EMIL, Brooklyn, N. Y.:
Box Tortoise.
WHITTIER, MR. W., East Orange, N. J.:
Small Alligator.
WINKS, MR. F., Brooklyn, N. Y.:
Box Tortoise.
WRIGHT, MR. B. U., Hastings-on-Hudson, N. Y.:
Small Alligator.
YEDLIN, MR. T., Brooklyn, N. Y.:
Painted Turtle.

PURCHASED BY THE SOCIETY

Salt Water, Local.—Fishes numbering 2,858, representing 50 species, invertebrates numbering 1,789, representing 11 species, and 14 turtles, representing 1 species were collected by the well-boat *Seahorse*. Quantities of live food were also secured. Specimens purchased from local fishermen are included. 156 Sea Horses were purchased at Sayville, Long Island.

Salt Water, Tropical.—From Key West shipment for Boston Aquarium 15% to New York Aquarium. Nurse Shark, 2; Brown Moray, 1; Speckled Moray, 1; Scamp, 2; Black Grouper, 2; Sand Perch, 7; Butter Hamlet, 2; Graysby, 2; Red Grouper, 10; Yellowtail, 5; Dog Snapper, 1; Spot Snapper, 4; Blue-striped Grunt, 5; Porkfish, 30; Sheepshead, 1; Bermuda Chub, 2; Sergeant Major, 15; Hogfish, 6; Beau Gregory, 5; Pudding Wife, 2; Red Parrot, 1; Common Parrot, 6; Slippery Dick, 2; Queen Angelfish, 1; Blue Angelfish, 12; Black Angelfish, 15; French Angelfish, 1; Townsend's Angelfish, 1; Spade-fish, 8; Blue Tang, 1; Butterfly Fish, 5; Triggerfish, 5; Cowfish, 2; Shell-fish, 5; Puffers, 2; Sandfish, 1; Goatfish, 1; Stone Crab, 1; Spiny Lobsters, 2. Bought on own account. Large Green Turtle, 1; female Sea Lions, 2. Total 180 specimens of 41 species.

Fresh Water, Local.—The following were collected by employees of the Aquarium in local park lakes and in southern New Jersey. Eel, 3; Large-mouthed Bass, 4; Yellow Perch, 5; Common Sunfish, 504; Common Roach, 700; Pearl Roach, 150; Goldfish, 200; Crayfish, 50. In southern New Jersey lakes and streams, White-whiskered Catfish, 16; Pickerel, 10; Black-banded Sunfish, 149; Pirate Perch, 6; Mudfish, 2; Spotted Turtle, 2; Painted Turtle, 6; Musk Turtle, 2; Crayfish, 21; Bull Frog, 7; Leopard Frog, 19; Carpenter Frog, 13; Fresh Water Mussels, 260; Suckers, 4; Common Sunfish, 50; Shiners, 6; Tree Frog, 1; Green Frog, 3; Wood Frog, 7; Spotted Newt, 107; Salamander, 6; Large-mouthed Black Bass, 2; Calico Bass, 1; Common

Roach, 12; Darters, 20. The following were purchased from various parties. Necturus, 7; Hellbenders, 11; Painted Turtle, 34; Snapping Turtle, 1; Musk Turtle, 1; Spotted Turtle, 8; Box Tortoise, 1; Black-banded Sunfish, 100; Pirate Perch, 5; Chub Suckers, 2; Mud Sunfish, 100; White-whiskered Catfish, 200; Fresh Water Killifish, 200; Mud Minnows, 700; Buffalo Fish, 11; Red Horse Sucker, 15; Quillback, 1.

Fresh Water, Tropical.—The following were purchased from various dealers. *Danio rerio*, 6; *Danio malabaricus*, 6; *Danio albolineatus* 6; *Belonesox belizanus*, 6; *Panchax lineatus*, 2; *Haplochromis strigigena*, 2.

The Aquarium Library

The serial journals of various institutions have been the chief additions to the library for the year, purchases of books being confined almost entirely to reference works for laboratory use.

Summary of Membership

Benefactors	6
Founders in Perpetuity	10
Founders	11
Associate Founders	14
Patrons	36
Life Members	390
Annual Members	2,087
Honorary Members	7
(*Total*)	2,561
Ladies' Auxiliary	38
Junior Auxiliary	306
Honorary Life	17
Fellows	45
Corresponding Members	15
Sustaining Members	9

Corrected to January 1, 1931.

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The New York Zoological Society

January 1, 1931

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Crane, Z. Marshall,
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*Davis, John W. A.,
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*deHeredia, C.,
*Delafield, Albert,
deMilhau, Louis John,
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deRham, Mrs. H. Casimir,
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Dickerman, Mrs. Watson B.,
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Doelger, Peter,
Doscher, Charles,
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*Douglas, James,
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DuBois, Miss Ethel,
DuBois, Miss Katharine,
*DuBois, William A.,
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Dunn, Gano,
Dunscombe, George Ellsworth,
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Ellis, W. Dixon,
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Ely, Ambrose K.,
Emmet, C. Temple,
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Fowler, A. A.,
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Frost, Le Roy,
Fuguet, Howard,
Fuller, Mrs. Eugene,
Gammell, William,
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Goodridge, Mrs. F. G.,
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Gunther, Franklin L.,
Guthrie, William D.,
*Hagenbeck, Carl,
Hagenbeck, Heinrich,
Hagenbeck, Lorenz,

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Hill, Clarence H.,
*Hill, Hugh,
Hills, Mrs. John,
*Hinchman, Walter,
*Hitch, Mrs. Frederick Delano,
*Hoe, Miss Margaret,
*Hoe, Richard M.,
Hoe, Mrs. Richard M.,
Holmes, C. R.,
*Hopkins, George B.,
*Hoyt, Theodore R.,
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*Hubbard, Thomas H.,
Hunt, Richard H.,
*Huntington, H. E.,
Hussey, Frederick,
Hyde, Mrs. Clarence M.,
Hyde, James Hazen,
Ingalls, Mrs. F. Abbot, Jr.,
Irwin, John V.,
Iselin, Adrian,
Iselin, Columbus O. D.,
*Isler, Paul A.,
*Jackson, Theodore F.,
*Jackson, Dr. Victor H.,
James, Arthur Curtiss,
Jennings, Oliver G.,
Jennings, Mrs. Oliver G.,
Jones, Charles H.,
Jones, Mrs. Edward H.,
*Juilliard, Mrs. A. D.,
Kahn, Otto H.,
Kane, Grenville,
*Kane, John Innes,
Kelley, Mrs. David J.,
Keyes, Mrs. Charles W.,
Keyser, Samuel S.,
Kidder, Nathaniel T.,
*King, George Gordon,
*Kingsland, William M.,
*Kissel, Gustav E.,
Krech, Dr. Shepard,
Kunhardt, W. B.,
Kuser, Mrs. Anthony R.,
Ladd, Walter G.,
LaFarge, C. Grant,
Lamont, Miss Elizabeth K.,
*Langdon, Woodbury,
*Lanier, Charles,
Lapham, Lewis H.,
Lee, Charles Northam,
*Leeds, Mrs. Warner M.,
Lehman, S. M.,
Lerner, Michael,
Lincoln, Edward K.,
Lochrie, John,
Loeb, Mrs. Morris,
Loomis, Alfred L.,
*Lounsbery, Ben-Ali H.,
*Lounsbery, Richard P.,
*Low, C. Adolphe,
*Low, Seth,

* Deceased

*Lydig, David,
*Lydig, Capt. Philip M.,
McAlpin, Charles Williston,
McComb, Jennings Scott,
McKay, Robert Gordon,
McKee, Hon. Joseph V.,
McKeever, I. C.,
*McKim, Charles F.,
McKinney, Glenn Ford,
*McLane, Guy Richards,
McLean, Mrs. James,
McMillin, Marion,
*Mackay, Donald,
Macy, V. Everit,
Madeira, Percy C.,
Mahaffie, Mrs. C. D.
*Maitland, Alexander,
Mallory, Charles H.,
*Marc, Theophilus M.,
*Markoe, Dr. Francis H.,
Marling, Alfred E.,
Marmon, Mrs. Elizabeth C.,
Marshall, Louis,
Matheson, Hugh M.,
*Matheson, William J.,
*Maxwell, Robert,
Mead, Mrs. Winter,
Merkel, Hermann W.,
Merle-Smith, Mrs. Van S.
Metcalf, Jesse,
*Metcalf, Manton B.,
Metcalf, Rowe B.,
Metz, Herman A.,
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Milbank, Jeremiah,
Miller, Dr. George N.,
Mills, Ogden L.,
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*Mitchell, A. M. Post,
Mitchell, Francis L.,
Mitchell, H. R.,
Mitchell, Hon. Mason,
*Mitchell Roland G.,
Mitchell, William,
Monaelesser, Dr. Adolph,
*Monell, Ambrose,
Moore, Charles Arthur, Jr.,
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*Moore, Mrs. James Amory,
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*Morgan, Mrs. J. P., Jr.,
Morgan, Junius S.,
*Morris, James,
Morris, Mrs. Lewis Rutherfurd,
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Nesbitt, Abram,
Nesbitt, Samuel,
Newbold, Thomas,
Newland, V. M.,
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Niles, William White,
Niles, Mrs. William White,
Norton, John W.,
Nunan, Hon. J. J.,
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O'Malley, Henry,
*Osborn, Mrs. Henry Fairfield,
Osborn, Henry Fairfield, Jr.,
Osborn, Mrs. William Church,
Osburn, Dr. Raymond C.,
Pack, Arthur Newton,
Pack, Arthur N.,
Painter, Kenyon V.,
*Parish, Henry,
Parker, A. W.,
Parrish, James C.,
Parsons, Mrs. John D., Jr.,
Parsons, Joseph,
Peabody, Charles A.,
Perkins, William H.,
*Peters, Samuel T.,
Peters, Theodore,
*Peters, Mrs. Theodore,
Peters, Thomas M.,
Pfeiffer, Curt G.,
Phelps, John J.,

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Phillips, William P.,
Phillips, Dr. John C.,
Phillips, John M.,
Phipps, Henry,
Phipps, Henry C.,
*Phoenix, Phillips,
Pierce, Henry Clay,
Pierrepont, Miss Anna Jay,
*Pierrepont, John J.,
Pierrepont, Robert L.,
Pierrepont, Seth Low,
*Pinchot, J. W.,
Pond, James B.,
*Porter, Clarence,
*Potter, Mrs. Henry C.,
Potter, Wilson,
*Pratt, Dallas B.,
Pratt, Harold I.,
Procter, A. Phimister,
Pulitzer, Ralph,
Putnam, George P.,
*Pyne, M. Taylor,
Pyne, Mrs. Percy R.,
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*Quintard, George W.,
Raymond, Charles H.,
Reed, Miss Bertha M.,
Renner, Charles J.,
Rice, Alexander Hamilton,
Rice, Mrs. Alexander Hamilton,
*Richardson, Mrs. George H.,
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Riker, Samuel, Jr.,
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*Robbins, Milton,
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*Rogers, Archibald,
Rogers, James Gamble, Jr.,
Roosevelt, Kermit,
Rucker, William J.,
Rungius, Carl,
Rutherfurd, Winthrop,
Ryle, William,
*St. John, Frank L.,
*Salters, J. Sanford,
Sampson, Henry,
Sanborn, Elwin R.,
*Sands, William R.,
Sanford, Henry,
Sanford, Henry, Jr.,
Sanford, Samuel S.,
*Sanger, Fairfield Osborn,
*Sargent, Henry B.,
Satterlee, Herbert L.,
Satterlee, Mrs. Herbert L.,
Scarritt, H. S.,
*Schermerhorn, J. Egmont,
*Schieffelin, Eugene,
Schieffelin, Schuyler,
Schley, Evander B.,
Schley, K. B.,
Schwarzenbach, Robert J. F.,
Scott, Stevenson,
Scoville, Miss Grace,
Semken, Dr. George H.,
Seton, Ernest Thompson,
Sharpe, Henry D.,
Shearson, Edward,
*Sheldon, Charles,
Sherman, George,
*Sherman, William Watts,
Shewan, James,
*Shields, George O.,
Slater, H. N.,
Sloan, Benson B.,
*Sloan, John,
*Sloan, Samuel,
Sloan, Samuel,
Sloane, Malcolm D.,
Smith, James A.,
Smith, James Vincent,
Smith, R. A. C.,
Soher, Le Roy,
Speyer, James,
*Squibb, Dr. Edward H.,
Squier, Stuart C.,

* Deceased

*Stetson, Francis Lynde,
Stewart, William R., Jr.,
Stokes, Miss Olivia E. Phelps,
Stone, Robert G.,
Strauss, Charles,
Streeter, D. D.,
*Sturges, Frederick,
Sturges, Frederick, Jr.,
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Taber, Miss Mary,
Tarlton, Leslie Jefferis,
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*Thalman, Ernst,
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Thompson, Lewis S.,
*Thompson, William P.,
Thorne, Mrs. Edwin,
Thorne, Mrs. W. V. S.,
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Tilford, Mrs. Henry Morgan,
Tod, Robert E.,
Todd, William H.,
Todd, William R.,
Townsend, Dr. Charles H.,
Travell, Mrs. Willard,
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Trevor, John B.,
Tritton, Claude H.,
Tuck, Edward,
Tuper, Dr. Charles C.,
Uhlmann, Frederick,
Uppercu, Inglis M.,
*Vail, Theodore N.,
*Vanderbilt, Alfred G.,
Van der Smissen, Dr. G. J.,
Van Norden, Mrs. Grace Talcott,
Van Rensselaer, Charles A.,
Varnum, Mrs. James M.,
*Wadsworth, Major W. Austin,
Wadsworth, Mrs. W. A.
Waid, D. Everett,
Wainwright, Richard T.,
*Walker, Dr. Henry Freeman,
*Wanamaker, Rodman,
Warburg, Felix M.,
*Warren, Samuel D.,
*Watson, Francis A.,
Watson, James S.,
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Webb, Watson,
*Webb, Dr. W. Seward,
Webster, Hamilton Fish,
*Welcher, Mrs. Fanny Avery,
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*Wendell, Evert Jansen,
*Wetmore, Charles W.,
*Wetmore, George Peabody,
Wharton, William P.,
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White, Edward,
*White, John Jay,
Whitehead, Mrs. John Jay,
*Whitehead, Paul,
Whitman, Malcolm D.,
*Whitney, Caspar,
Whitney, Cornelius Vanderbilt,
*Whitney, Harry Payne,
*Whitney, Payne,
Willets, Elmore A.,
Willets, Howard,
Williams, Clark,
Williams, William,
*Wing, John D.,
Wing, John Morgan,
Winthrop, Beekman,
*Winthrop, Egerton L.,
*Withers, George B.,
Woerishoffer, Mrs. Anna,
Wood, Dr. Casey A.,
Woodward, William,
*Worthington, C. C.,

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Andrews, Gen. Avery D.,
Andrews, Gwynne M.,
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Ansbacher, Louis A.,
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Archbold, Mrs. J. F.,
Arend, F. J.,
Argabrite, Mrs. N. M.,
Arkush, Reuben,
Armour, George A.,
Armstrong, F. F.,

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Arnold, Miss Mary Selena,
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Asche, Sidney L.,
Aspinwall, J. Lawrence,
Assmuth, Rev. Joseph,
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Atwater, Mrs. William C.,
Atwood, Kimball C.,
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Bacon, Mrs. Francis McNiel,
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Bagby, Albert Morris,
Bagg, Mrs. Clinton L.,
Bahnsen, C.,
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Baker, John Stewart,
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Baker, Stephen,
Bakhmeteff, Boris A.,
Baldwin, Henry deForest,
Baldwin, James H.,
Baldwin, Jared G.,
Ball, Frank B.,
Ballantine, Arthur A.,
Ballard, Edward L.,
Ballard, Sumner,
Bamberger, Louis I.,
Bamberger, Oscar,
Bangs, Francis,
Bangs, Henry McComb,
Banks, Theodore H.,
Barber, Thomas H.,
Barbour, F. K.,
Barclay, Mrs. Reginald,
Bardach, Joseph,
Barker, Dr. Percival M.,
Barnard, J. Augustus,
Barnes, Courtlandt D.,
Barnes, Courtlandt D., Jr.,
Barnes, Henry B.,
Barnes, James,
Barnett, Chester P.,
Barney, Ashbell H.,
Barney, Edgar S., Sc.D.,
Barret, Cecil,
Barron, George D.,
Barrymore, John,
Bartels, Henry,
Barthman, Henry C.,
Bartol, Henry G.,
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Bass, Robert,
Bass, Mrs. Robert,
Bassler, Dr. Harvey,
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Bauchle, Thomas H., Jr.,
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Bayne, Mrs. L. P.,
Beach, Goodwin Batterson,
Beach, William N.,
Beadleston, Miss Edith,
Beal, Mrs. Robert C.,
Beale, Phelan,
Beall, C. W.,
Beall, Jeremiah,

Beals, John D., Jr.,
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Beekman, Fenwick, M.D.,
Beers, Mrs. E. LeGrand,
Beers, Miss M. Elisabeth,
Behrend, Dr. Otto F.,
Belknap, Henry W.,
Bell, Walter E.,
Bell, William B.,
Beller, A.,
Beller, William F.,
Benedict, Lemuel C.,
Benjamin, Mrs. William M.,
Benjamin, Mrs. W. W.,
Benkard, Mrs. Harry H.,
Benkard, J. Philip,
Benkert, William R.,
Benson, R. Lawrence,
Benziger, Bruno,
Berdan, Temple T.,
Berg, Hunter Van B.,
Berger, Mrs. Alma,
Berger, Mrs. Charles F.,
Berggren, E. R. T.,
Bergh, Henry,
Berkitz, Bernhard,
Bernheim, George B.,
Bernheim, Henry J.,
Bernheimer, Charles L.,
Bertron, S. R.,
Best, Mrs. Charles B.,
Betty, Miss Ellen I.,
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Biddle, William C.,
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Biggs, Mrs. Hermann M.,
Bikoff, Zaffar X.,
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Bing, Alexander M.,
Binney, Edwin,
Binzen, John Peter,
Birchall, Mrs. F. T.,
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Bisland, P. E.,
Bispham, George Tucker,
Bissinger, George H.,
Bistany, George M.,
Bixby, Henry D.,
Blagden, George,
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Blair, Dr. Bruce,
Blair, Charles H.,
Blair, J. Insley,
Blair, Mrs. Ledyard,
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Blake, Joseph A.,
Blakeslee, Mrs. C. W.,
Blauvelt, Mrs. Adele P.,
Bliss, Miss S. D.,
Bliss, Mrs. Walter Phelps,
Blodgett, Thomas H.,
Bloodgood, Robert F.,
Bloomingdale, Mrs. Joseph B.,
Blumenthal, Hugo,
Blumenthal, Sidney,
Boardman, Mrs. Bradford,
Boardman, Kenneth,
Boardman, Mrs. Kenneth,
Boardman, Miss R. C.,
Boese, Quincy Ward,
Boettger, Mrs. Pauline,
Boettger, Theodore,
Boles, Edgar H.,
Bolster, Harold,
Bolton, Miss Ella F.,
Bolton, William H.,
Bond, Stephen N.,
Borie, A. E.,
Borland, J. Nelson,
Bowdoin, Miss Edith G.,
Bowdoin, George Temple,
Bowen, Clarence Winthrop,
Bowen, Mrs. Clarence Winthrop,
Bowers, Henry S.,
Bowers, Spotswood Dandridge,
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Boyden, Dwight F.,

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Bradley, Allan B. A.,
Bradley, Miss Mary T.,
Brady, Nicholas F.,
Brand, Albert R.,
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Bridges, Robert,
Briggs, James E.,
Brigham, Storrs,
Brill, Dr. A. A.,
Brinton, Mrs. Willard C.,
Bristol, John I. D.,
Bristow, William B.,
Brokaw, Clifford V.,
Brokaw, Mrs. Inman,
Bromley, Chester,
Brooks, Chester K.,
Brooks, Frederick,
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Brown, Charles S., Jr.,
Brown, Dickson Q.,
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Brown, Edwin H.,
Brown, Elmer Ellsworth,
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Brown, Vernon Carleton,
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Browning, William H.,
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Brunswick, Mrs. Emanuel,
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Budd, Henry A.,
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Bugbee, Dr. Henry G.,
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Bulkley, Jonathan,
Bulkley, Mrs. Jonathan,
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Burnham, Gordon W.,
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Burrill, Edward L.,
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Bush, James I.,
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Cabot, John, Jr.,
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Caesar, Henry A.,
Cahen, James P.,
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Calman, Henry L.,
Camden, Mrs. Sprigg D.,
Cammann, Edward C.,
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Cammann, Henry Lorillard,
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Campbell, Mrs. Robert James,
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Cannon, Miss Mary Antoinette,
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Carlton, Newcomb,
Carns, Arthur L.,
Carpenter, C. L.,
Carroll, Philip A.,
Carscallen, Mrs. John D., 2nd.,
Carson, Mrs. J. Henry,
Carter, Ernest T.,
Cartier, P. C.,
Casamajor, Dr. Louis,
Case, Henry Phelps,
Case, J. Herbert,
Cass, Charles Anderson,
Catts, Robert M.,
Chadbourne, William M.,
Chadwick, Mrs. E. Gerry,
Challinor, David,
Chalmers, Arthur A.,
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Chamberlin, William B.,
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Chambers, Hilary R.,
Chance, Edwin M.,
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Chapin, Miss Maria Bowen,
Chapin, Mrs. Nano E.,
Chapman, Clarence C.,
Chapman, Clarence E.,
Chapman, Henry Otis,
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Chaves, Jose Edward,
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Cheney, Mrs. Knight Dexter, Jr.,
Cheney, Louis R.,
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Childs, Eversley,
Childs, Starling W.,
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Church, Austin,
Church, Charles T.,
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Clark, B. Preston,
Clark, C. M.,
Clark, Charles Martin,
Clark, Edward H.,
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Clark, Mrs. Edgar Milton,
Clark, Harold Benjamin,
Clark, Herbert L.,
Clark, J. Francis Aloysius,
Clark, Mrs. J. F. A.,
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Clark, Marshall,
Clarke, E. A. S.,
Clarke, Thomas B.,
Clausen, George,
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Clowes, Frederick V.,
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Colt, Richard C.,
Colt, S. Sloan,
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Comstock, Mrs. H. G.,
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Cone, Frederick H.,
Conheim, Hermann,
Connfelt, Charles M.,
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Constantian, Dr. Raphael,
Content, Harry,
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Cooper, Henry S. Fenimore,
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Craig, Ross M.,
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Crane, Mrs. W. Murray,
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Crawford, William,
Crews, Miss Mary A.,
Crimmins, Miss Mary,
Crimmins, Thomas,
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Crocker, William T.,
Cromwell, James W.,
Cromwell, Lincoln,
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Curiel, H.,
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Cutting, Fulton,
Cutting, R. Fulton,
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Davis, Howland,
Davis, Morgan,

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Davison, Miss Ella H.,
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de Forest, Johnston,
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Delafield, Robert Hare,
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Delano, Moreau,
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dePeregny, Comtesse,
Derby, James Lloyd,
deRham, Mrs. Charles, Jr.,
DeSola, Ralph C.,
Detmer, Julian F.,
Dewey, Frederick A.,
Dewey, Martin,
Dexter, George M.,
Deyoe, H. L.,
deZaldo, Frederick,
Dickerson, E. N.,
Dickey, Mrs. Charles D.,
Dickinson, Mrs. John M.,
Diehl, George H., Jr.,
Dienst, A. P.,
Dike, Oscar D.,
Dillon, Herbert Lowell,
Dix, Mrs. Alfred P.,
Dixon, F. E.,
Doane, Benjamin H.,
Dock, George, Jr.,
Dodd, Alfred W.,
Dodge, Bayard,
Dodge, Cleveland E.,
Dohme, John L.,
Dominick, Gayer G.,
Dommerich, Otto L.,
Donald, Miss Anna E.,
Doolittle, F. W.,
Doremus, F. S.,
Doubleday, F. N.,
Douglas, Miss Elizabeth,
Douglas, Walter,
Douglas, William H.,
Dowd, Mrs. Joseph,
Dowd, Wyllys E., Jr.,
Downey, John I.,
Dows, Mrs. David, Sr.,
Dows, Tracy,
Drager, F. W.,
Drake, Miss Mary E.,
Draper, Charles D.,
Draper, Dr. George,
Draper, John M.,
Drayton, J. Coleman,
Drayton, W. Heyward, 3rd,
Drummond, I. Wyman,
Duane, Mrs. James May,
DuBois, Dr. Eugene F.,
DuBois, Miss Margaret,
DuBois, Mrs. Matthew B.,
Duel, Dr. Arthur B.,
Duffy, John J.,
Duis, B. A.,
Duncan, Stuart,
Duncan, Mrs. Stuart,
Dunham, Lewis L.,
Dunham, Mrs. Edward Kellogg,
Dunlop, E. A.,
du Pont, H. F.,
Durant, Donald,

Durkee, Mrs. A. W.,
Edwards, George Hartwell,
Durkee, Richard P. H.,
Durkee, Mrs. Richard P. H.,
Dwight, Mrs. Winthrop E.,
Eaton, Mrs. Frederick H.,
Eaton, George L.,
Eberstadt, Ferdinand,
Eck, William J.,
Eckart, Edmund,
Eddy, L. A., Jr.,
Eden, John H.,
Edgar, Herman L. R.,
Edgar, William S.,
Edge, John W. E.,
Edison, Mrs. Thomas A.,
Edmonds, Thomas C.,
Edwards, Dr. George Vail,
Ehret, Louis J.,
Ehrman, Mrs. Ernest,
Eidlitz, Robert James,
Eilers, Karl,
Einhorn, Dr. Max,
Einstein, I. D.,
Eldridge, William T.,
Elias, Henry H.,
Elliot, Miss Margaret H.,
Ellis, Ralph, Jr.,
Ellner, Lewis A.,
Ellsworth, D. S.,
Ellsworth, John S.,
Elmendorf, Dr. Ten Eyck,
Elsberg, Dr. Charles A.,
Emanuel, J. H. Jr.,
Embury, Miss Emma C.,
Emmet, Robert Temple,
Erdmann, Martin,
Erdmann, William,
Erlanger, Milton S.,
Erving, Miss Katharine V. R.,
Esberg, Henry,
Eustis, John E.,
Evans, Mrs. Morgan D.,
Evans, S. M.,
Evans, Victor J.,
Ewen, William Carnegie,
Ewing, George R. M.,
Ewing, Mrs. Thomas,
Fabbri, Ernesto G.,
Faber, Eberhard,
Fahnestock, Dr. Ernest,
Fahnestock, Mrs. Ernest,
Fahnestock, Harris,
Fahnestock, William,
Fairchild, Benjamin L.,
Fairchild, Benjamin Thomas,
Fairchild, Mrs. Charles S.,
Fales, Haliburton, Jr.,
Falls, Mrs. DeWitt Clinton,
Farley, Colvin,
Farley, Mrs. Gustavus, Jr.,
Farnam, William W.,
Farr, John, Jr.,
Fay, Francis B.,
Fechtig, Dr. St. George,
Feder, Joseph T.,
Feldman, Herman,
Ferguson, William C.,
Ferry, Mansfield,
Feuss, Major Andrew W.,
Field, Mrs. Augustus B.,
Field, Henry,
Field, Mrs. E. Marshall,
Filley, F. Herbert,
Fincke, Mrs. Reginald,
Fischer, William H.,
Fish, Mrs. Hamilton,
Fisher, Dr. G. Clyde,
Fitzgerald, Miss Alice,
Fitzgerald, Charles Maurice,
Fitzhugh, John L.,
Fitzsimmons, Paul,
Flagler, Harry Harkness,
Fleischmann, Udo M.,
Fleitmann, Frederick T.,
Fleming, Matthew C.,
Fletcher, Henry,
Florsheim, Harry A.,

Floyd-Jones, Edward H.,
Fogarty, James F.,
Fogg, Julius H. B.,
Foot, Sandford Dwight,
Forbes, Dr. Joseph H.,
Forrest, Archibald A.,
Forsyth, Mrs. Harry,
Fosburgh, James B. A.,
Foshay, P. Maxwell,
Foster, Frank B.,
Foster, Giraud,
Foster, Howard Crosby,
Foster, J. Hegeman,
Foster, Macomb G.,
Foster, Pell W.,
Fowler, Mrs. Anderson,
Fowler, Mrs. Arthur,
Fowler, Carl H.,
Fowler, Harold,
Fowler, Russell S., M.D., F.A.C.S.,
Fox, Miss Alice Bleecker,
Fox, Austin G.,
Fox, Frederick P.,
Frank, Louis,
Fraser, Alexander J.,
Fraser, Alexander V.,
Fraser, Mrs. Charles D.,
Fraser, Mrs. George C.,
Fraser, Miss J. K.,
Fraser, Miss Sarah,
Frederick, Mrs. Leopold,
Freeman, Miss Gertrude A.,
Frelinghuysen, Thomas T. K.,
French, Daniel C.,
French, Mrs. John,
Frew, Walter E.,
Friedman, Mrs. A. S.,
Fries, Dr. Harold H.,
Frissell, A. S.,
Frith, Miss Louise S.,
Froehlich, George,
Fromm, S. W.,
Frost, Aarón V.,
Frothingham, C. Frederick,
Frothingham, John W.,
Frothingham, William I.,
Fry, Morton H.,
Fulle, John H.,
Fulton, Harriet E.,
Fulton, Kerwin H.,
Funke, Edmund A.,
Gaillard, Mrs. William D.,
Galban, Eugenio,
Galland, Miss Bertha,
Galland, Nathaniel K.,
Gallatin, Albert,
Gallatin, Mrs. Albert,
Gallatin, Miss Beatrice,
Gallatin, Goelet,
Gallatin, Mrs. Goelet,
Gallaway, Merrill W.,
Gallowhur, W. G.,
Ganss, Herman O.,
Garrard, Miss Margaret H.,
Garrett, John W.,
Garrett, Miss Laura B.,
Garrettson, Miss Helen Jay,
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Gawtry, Lewis,
Geddes, Donald G.,
Geisler, Max,
Gerdes, Theodore R. N.,
Gerry, Peter G.,
Gerry, Robert L.,
Gerstendorfer, Albert,
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Gibbons, Mrs. George B.,
Gibbs, George,
Gibson, H. D.,
Gibson, W. Frazer,
Gilsey, Henry,
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Glenn, John M.,
Glyn, W. E.,
Goddard, Mrs. Morrill,
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Godley, George McM.,

Godwin, Frederick M.,
Goell, Jacob,
Goetchius, Mrs. J. M.,
Goldan, Dr. S. Ormond,
Goldberg, R. L.,
Goldmann, Julius,
Goldsmith, Dr. Alfred N.,
Goldwater, Henry,
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Goodhue, Mrs. M. A.,
Goodwillie, Robert H.,
Goodwin, Grenville,
Goodwin, H. Sage,
Goodwin, Mrs. J. J.,
Goodwin, James L.,
Goodwin, John B. L.,
Goodwin, Walter L.,
Goodyear, David C.,
Gotthold, Arthur F.,
Gould, C. C.,
Gould, Charles W.,
Gould, Mrs. Edwin,
Graf, William,
Grant, Mrs. De Forest,
Grant, E. R.,
Grant, Mrs. Rollin Pierson,
Graves, George Coe,
Graves, Henry, Jr.,
Gray, Henry G.,
Gray, Prentiss N.,
Greenhall, Arthur,
Greenough, John,
Greenough, Mrs. John,
Greenwood, Joseph R.,
Greer, Mrs. Louis Morris,
Gregg, William C.,
Gregory, Franklin U.,
Griffin, William V.,
Griffith, Miss Susan D.,
Grigg, Harry K.,
Grinnell, E. Morgan,
Griswold, William E. S.,
Grosvenor, Miss Rosa Anne,
Gruhl, Edwin,
Gruner, William C.,
Gudernatsch, Dr. F.,
Guggenheim, Harry F.,
Guggenheim, Simon,
Gulick, Archibald A.,
Guthrie, Mrs. Charles S.,
Gutman, Dewitt,
Guttag, Henry,
Gwinn, Ralph W.,
Haas, George C.,
Hackett, Edmond Byrne,
Hadden, Miss Frances,
Hadden, Hamilton,
Haffen, John M.,
Hage, John D.,
Haight, Charles S.,
Haines, Charles D.,
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Hall, John H., Jr.,
Hall, William W.,
Hallock, Charles P.,
Halsey, Mrs. Charles W.,
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Hambleton, T. Edward,
Hamersley, Louis Gordon,
Hamilton, Miss Elizabeth S.,
Hamilton, Mrs. Morgan,
Hamlin, Mrs. Harry L.,
Hammer, Trygve,
Hammond, Mrs. John Henry,
Hammond, Lyman P.,
Hammond, Paul,
Hance, John A.,
Handy, Parker D.,
Hanson, Miss Betty,
Harder, F. Kenneth,
Hardin, William B.,
Hare, Morin S.,
Harley, Milton Price,
Harmon, Mrs. Benedict,
Harnischfeger, P.,
Harriman, W. A.,
Harris, Albert H.,

Harris, Charles C.,
Harris, George Upham,
Harris, Mrs. Victor,
Harrison, Dr. Calvin L.,
Harrison, Mrs. W. Henry,
Hart, George,
Hartshorne, J. M.,
Haskell, Mrs. Amory L.,
Hastings, Mrs. Thomas,
Hatfield, Joshua,
Havemeyer, Henry O.,
Haven, J. Woodward,
Hay, Clarence L.,
Hayes, His Eminence, Cardinal,
Hayes, Dr. William Van Valzah,
Hayes, Mrs. William Van Valzah,
Haynes, William DeForest,
Hayward, Miss Lydia,
Hazen, George H.,
Heck, George C.,
Heckard, Lt. Col. W. A.,
Heide, Miss Bertha,
Heide, Henry, Jr.,
Heide, Herman L.,
Heide, Julius A.,
Heiman, E.,
Heine, Arthur,
Heintz, John C.,
Heitman, John,
Hekma, Jacob,
Helme, Mrs. George A.,
Helving, Frank,
Hencken, Hancke,
Henderson, Norman,
Henry, Francis A.,
Henry, Mrs. Ryder,
Hermann, Bernard F.,
Hernstadt, William L.,
Herrick, Harold,
Herrman, Mrs. Henry S.,
Hershey, Andrew H.,
Herzog, Samuel A.,
Hess, Dr. Alfred F.,
Hewitt, Mrs. Cooper,
Hewitt, Miss Sarah C.,
Heydt, Charles E.,
Hicks, John M. W.,
Hicks, Miss M. Helen,
Higgins, Richard H.,
Hill, E. B.,
Hill, Frederick Trevor,
Hill, Robert C.,
Hinton, Alfred P.,
Hirsch, Miss Blanche,
Hirsch, Charles S.,
Hirschland, Franz H.,
Hoadley, Mrs. Eliot Betts,
Hochschild, H. K.
Hoe, Arthur F.,
Hoe, Mrs. Robert,
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Hoffman, Miss M. U.,
Hoffmann, Wallace J.,
Hoffman, Mrs. William M. V.,
Hoffman, W. W.,
Hogan, Mrs. Jefferson,
Hogg, Kenneth S.,
Holbrook, Mrs. Edward,
Holden, Milton W.,
Hollenback, Miss Amelia B.,
Holmes, George E.,
Holt, Robert S.,
Holter, Mrs. E. O.,
Holton, Charles W.,
Holzworth, John M.,
Homes, Henry F.,
Hooker, Dr. Ransom S.,
Hoover, Loring R.,
Hopkins, John R.,
Hoppin, Bayard C.,
Hoppin, Miss Frances,
Hoppin, William W.,
Hornaday, Mrs. Josephine C.,
Horr, L. William,
Horswell, Mrs. Laurence A.,
Hoskier, H. C.,
Houghton, Clement S.,
Housman, Clarence J.,

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Howell, T. A.,
Howells, Mrs. John Mead,
Howland, Mrs. Henry E.,
Hoyer, F.,
Hoyt, Alfred O.,
Hoyt, George S.,
Hoyt, Mrs. Henry R.,
Hoyt, John Sherman,
Hoyt, Mrs. Lydig,
Hoyt, Mrs. Richard F.,
Hoyt, Miss Virginia Scott,
Hubbard, Mrs. G. M.,
Huckins, Miss Marian,
Hudson, Mrs. Marjorie V. L.,
Hughes, Charles E.,
Hughes, Charles E., Jr.,
Hughes, John,
Hughes, Rev. W. D. F.,
Huntington, Ford,
Huntington, Henry S.,
Hupfel, J. Christian G.,
Hurd, Mrs. Richard M.,
Hurdman, Frederick W.,
Hurlbut, Miss Margaret C.,
Hutchins, Augustus Schell,
Hutchins, Harley D.,
Hutchinson, Cary T.,
Hutton, E. F.,
Huyler, C. D.,
Huyler, F. D.,
Hyatt, John S.,
Hyde, B. T. Babbitt,
Hyde, E. Francis,
Hyde, Dr. Frederick E.,
Hyde, George H.,
Hyde, Seymour Worrall,
Illingworth, Clarence,
Imboden, H. M., M.D.,
Ingalls, Walter Renton,
Ingersoll, Ernest,
Ingraham, Henry A.,
Inslee, Edwin W.,
Isaacs, Stanley M.,
Iselin, C. Oliver,
Iselin, Miss Georgine,
Iselin, Mrs. Lewis,
Iselin, Miss Louise M.,
Iselin, William E.,
Iselin, Mrs. William E.,
Iselin, William O'Donnell,
Israel, Leon,
Ives, Raymond,
Jaches, Dr. Leopold,
Jackson, Frederick W.,
Jackson, Mrs. Frederick W.,
Jackson, John G.,
Jackson, Patten,
Jacobs, Samuel Keller,
Jacobus, John S.,
Jacquelin, Herbert T. B.,
Jaeckel, Mrs. H. Francis,
Jaffray, Mrs. Robert,
James, Mrs. Arthur Curtiss,
James, Dr. Henry,
James, Henry, Jr.,
James, Mrs. Walter B.,
James, Mrs. Wortham,
Jameson, Mrs. Edwin C.,
Jarecki, Mrs. F. C.,
Jenkins, A. W.,
Jenkins, Guy S.,
Jenkins, Mrs. Helen H.,
Jenks, Robert I.,
Jennings, Walter,
Jesup, Edward N.,
John, Robert,
Johnes, Mrs. William Foulke,
Johnson, F. Coit,
Johnson, Gilbert H.,
Johnston, J. Herbert,
Johnston, Dr. Marius E.,
Jones, Mrs. Cadwalader,
Jones, DeWitt Clinton,
Jones, Mrs. Dwight A.,
Jones, H. K., Jr.,
Jones, H. LeRoy,
Jones, Lewis Q.,

Jones, Percy C.,
Judson, William D.,
Kadel, John,
Kahlo, Mrs. George Dwight,
Kahn, Mrs. Otto H.,
Kahn, Walter N.,
Kalish, Miss Annie,
Kane, Mrs. Arthur S.,
Kane, Mrs. DeLancey,
Kantor, Dr. Mark G.,
Karelsen, Eph. A.,
Katenkamp, J. F.,
Katz, William,
Kaufmann, C. B.,
Kean, Hamilton Fish,
Kean, Mrs. Hamilton Fish,
Kean, John,
Kean, Robert Winthrop,
Keech, Frank B.,
Keech, Mrs. Frank Browne,
Keeler, Mrs. C. B.,
Keil, Henry F.,
Kelley, Nicholas,
Kelly, Dr. Howard A.,
Kempland, William C., Jr.,
Kemsley, Raymond E.,
Kennan, Mrs. George,
Kennedy, Edward G.,
Kennedy, Mrs. H. Van Rensselaer,
Kennedy, Mrs. John Stewart,
Kennelly, William,
Kennerly, Miss M. M.,
Kent, Edwin C.,
Keppel, David,
Ketcham, Edward C.,
Ketcham, Irving M.,
Keuffel, W. G.,
Kiernan, Peter D.,
Kilbreth, James T.,
Kilmarx, Louis E.,
King, Mrs. Augustus F.,
King, Edward D.,
King, James Gore,
King, Miss Minnie P.,
Kingsford, Irving B.,
Kingsley, W. M.,
Kinkead, Miss Jennie H.,
Kinney, Warren,
Kinney, Mrs. Warren,
Kip, W. Ruloff,
Kirk, Louis E.,
Kirkham, William B.,
Kirkham, Sidney A.,
Kissel, Mrs. W. Thorn,
Kittredge, Samuel Dana,
Klauser, Miss Cora,
Klaw, Marc,
Klein, D. Emil,
Klein, Milton M.,
Klingenstein, Charles,
Klots, Allen Trafford, Jr.,
Knapp, Arnold,
Knapp, William J.,
Knoedler, Roland F.,
Knowlton, Eben B.,
Koch, Edward R.,
Koegel, Walter J.,
Kolb, Fred.,
Kolb, George C., Jr.,
Koles, Dr. Henry M.,
Kollstede, C. A.,
Konta, Alexander,
Koster, Dr. Harry,
Krause, Holger E.,
Krech, Mrs. Alvin W.,
Krueger, Richard G.,
Krumb, Henry,
Kuhn, August,
Kuhn, Frank,
Kuhn, Julius,
Kumpf, George L.,
Kunhardt, Mrs. Henry R.,
Kunz, George F.,
Kursheedt, Alphonse H.,
Kurzman, Charles C.,
Kuser, Miss Cynthia G. D.,
Kuser, John Dryden,
Kuser, John L.,

Kuttroff, Adolf,
La Branche, George M. L., Jr.,
Labrot, W. H.,
Ladd, William Sargent, M.D.,
Lagai, Dr. George,
Lagemann, C.,
Laimbeer, John,
Lambert, Dr. Adrian V. S.,
Lambert, Dr. Alexander,
Lambert, Dr. Samuel W.,
Lambert, Mrs. Samuel W.,
Lamont, Mrs. Thomas William,
Landauer, I. N.,
Landon, Francis G.,
Lane, Mrs. E. V. Z.,
Lane, Miss Katharine W.,
Lane, Wolcott G.,
Lange, Miss Carmen,
Langeloth, Mrs. Valeria,
Lanier, Mrs. James F. D.,
Lanman, Ludlow T.,
Lapham, Mrs. John J.,
Latting, Charles P.,
Lauterbach, Mrs. Amanda F.,
Lawrence, R. Warren,
Lawrence, Townsend,
Leach, Henry Goddard,
Ledyard, Mrs. Lewis C.,
Lee, Mrs. Frederic S.,
Lee, Dr. Henry T.,
Lee, Samuel,
Lefferts, Mrs. Gillet,
Leffingwell, R. C.,
Lefkovics, Mrs. Juliet,
Leggett, Warren F.,
Lehmaier, James M.,
Lehman, Harold M.,
Leidy, Mrs. Carter Randolph,
Leindorf, J. P.,
Leonard, Mrs. H. Ward,
Lerner, Samuel A.,
Leslie, Mrs. J. C.,
Lester, A. Edward,
Lester, Henry M.,
Lester, William C.,
Levey, Charles Bispham,
Levienne, Mrs. Sonia,
Levy, Edgar A.,
Levy, Louis S.,
Lewis, Mrs. Arthur M.,
Lewis, Mrs. August,
Lewis, Edward J.,
Lewisohn, Adolph,
Lewisohn, Samuel A.,
Lichtenstein, Oscar R.,
Lieb, Charles C.,
Liebstein, Dr. A. M.,
Lilienthal, Dr. Howard,
Lincoln, Frederic W.,
Lindeberg, Harrie T.,
Lippincott, Arthur H.,
Lipsey, George C.,
Lissauer, Robert,
Lissberger, Milton L.,
Litchfield, E. Hubert,
Litchfield, Edward H.,
Little, Mrs. Arthur,
Livermore, P. W.,
Livingston, Miss Anna P.,
Livingston, Edward de P.,
Lloyd-Smith, Wilton,
Lobenstine, Mrs. William C.,
Lockett, Mrs. A. H.,
Loewi, Hugo V.,
Loewy, Edmund C.,
Logan, Miss Florence L.,
Look, David M.,
Look, Edward Townsend,
Loomis, Guy,
Lord, Miss E. C.,
Lounsberry, Miss Alice,
Low, Ethelbert Ide,
Low, Seth,
Lowell, James B.,
Lowther, Christopher M.,
Ludington, C. H.,
Ludlow, Mrs. Banyer,
Ludlum, C. A.,

Lueder, C. G.,
Lueder, E. L.,
Luke, Adam K.,
Luke, David L.,
Lusk, Prof. Graham,
Lyeth, J. M. Richardson,
Lyman, Frank,
Lyman, Miss Grace Greenleaf,
Lyman, Theodore,
McAlpin, Mrs. Charles W.,
McAlpin, Dr. D. H.,
McAlpin, Mrs. D. Hunter,
McAlpin, Dr. K. R.,
McBride, Mrs. Herbert,
McCabe, T. T.,
McCagg, Louis B.,
McCall, Richard,
McCarter, George W. C.,
McClintock, Gilbert S.,
McCrea, W. S.,
McCreery, Henry Forbes,
McCulloh, J. S.,
McDonald, C. Eric W.,
McEwen, Alfred,
McEwen, Paul,
McEwen, Mrs. Paul,
McFadden, Philip G.,
McFadden, Mrs. W. A.,
McFarlin, W. K.,
McGusty, Mrs. Robert T.,
McIlhenny, Edward A.,
McKay, Mrs. Robert Gordon,
McKelvey, Robert,
McKim, Leroy,
McLane, Thomas S.,
McManus, Edward F.,
McMath, Robert R.,
McMillan, Francis W.,
McNair, William,
McNaughton, Lawrence T.,
Maas, Milton A.,
Mac Cracken, Mrs. George G.,
MacEnulty, J. F.,
Mac Lean, Mrs. Charles F.,
Mack, Arthur C.,
Magee, John,
Mager, F. Robert,
Maitland, James W.,
Males, Barnet,
Mali, Mrs. Pierre,
Mallory, Robert, Jr.,
Malone, L. William,
Mann, Mrs. George W.,
Mann, S. Vernon,
Mansfield, Howard,
Manville, H. E.,
Mapes, Eugene E.,
Marckwald, Albert H.,
Marcuse, Alexander J.,
Maresi, Pompeo M.,
Marienhoff, Miss Beth,
Mariners Savings Bank,
Markham, Robert D.,
Markle, John,
Marsh, Charles Capron,
Marshall, A. W. W.,
Marshall, Charles C.,
Marston, Hunter S.,
Martin, Bradley, Jr.,
Martin, Mrs. Grinnell,
Martin, Mrs. Howard Townsend,
Martin, John S.,
Martin, Mrs. Shelton E.,
Martin, Dr. Walton,
Marvin, Langdon P.,
Marvin, Mrs. Langdon P.,
Marye, R. V.,
Mason, C. N.,
Masten, Arthur H.,
Mather, Samuel,
Matheson, Mrs. J. W.,
Mathews, Edward J.,
Matthews, Dr. Frank Cameron,
Matzke, Adolph,
Maxwell, Francis Taylor,
Maxwell, Howard W.,
Maxwell, William,
Mayer, B.,

Mayer, Miss Rosalynde de Lima,
Maynard, Mrs. Walter E.,
Meadow, Meyer,
Meehan, Irving H.,
Megeath, S. A.,
Meinhard, Morton H.,
Melander, Prof. A. L.,
Mellon, E. P.,
Mellon, Mrs. E. P.,
Meloy, Andrew D.,
Mercer, Mrs. Martha Dana,
Mercer, William R.,
Merrill, Dr. E. F.,
Merrill, Edwin G.,
Meserve, Frederick H.,
Messenger, Miss Maria Gerard,
Meyer, Mrs. Charles G.,
Meyer, Eugene, Jr.,
Meyer, J. Edward,
Meyrowitz, Emil B.,
Michalis, Mrs. Clarence G.,
Middlebrook, Frederick,
Middleton, Cornelius W.,
Milburn, John G.,
Miller, Mrs. Charles E.,
Miller, Mrs. Elizabeth C. T.,
Miller, Lawrence McK.,
Miller, Roswell,
Miller, W. W.,
Millett, S. C.,
Millhiser, Mrs. Regina V. G.,
Milliken, Mrs. Gerrish H.,
Mills, Abraham G.,
Mills, Andrew,
Mills, Dudley H.,
Mills, Frederic C.,
Milmine, Mrs. C. E.,
Milne, Clyde,
Mitchell, Charles E.,
Mitchell, Grant,
Mitchell, Mrs. John Ames,
Mitchell, S. A.,
Mitchell, Mrs. S. Roger,
Mitchell, Mrs. Walter L.,
Mogi, Mrs. Y.,
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Montgomery, Robert H.,
Moore, Barrington,
Moore, Mrs. Benjamin,
Moore, Mrs. Casimir deR.,
Moorhead, Horace R.,
Moran, Charles,
Morawetz, Victor,
Morehead, John M.,
Morgan, Miss Anne,
Morgan, Miss C. L.,
Morgan, Edwin D.,
Morgan, Junius S., Jr.,
Morgan Wallace,
Morgan, William Fellowes,
Morris, Dave H.,
Morris, Du Bois S.,
Morris, Lewis Spencer,
Morris, Richard L.,
Morrison, Mrs. Charles King,
Morrison, N. H.,
Morse, Howard M.,
Mortimer, Stanley Grafton,
Morton, Mrs. Paul,
Mosenthal, Mrs. Herman O.,
Mosle, A. Henry,
Mosman, Philip A.,
Motley, James M.,
Mott, Mrs. John Browne,
Moyer, Albert,
Mulford, Edwin H.,
Munger, Edward A.,
Munn, John P.,
Munroe, John,
Murgatroyd, John,
Murphy, Grayson, M. P.,
Murray, R. D.,
Murtha, Thomas F.,
Muschenheim, Frederick A.,
Myers, Frank J.,
Myles, Robert C., Jr.
Nadal, Mrs. Charles C.,

Nadelman, Mme. Elie,
Nadle, Henry,
Nathan, Harold,
Naumburg, George W.,
Naumburg, Mrs. Walter W.,
Neergaard, Dr. A. E.
Neilson, Dr. Howard S.,
Nesmith, James,
Neumoegen, M. L.,
Neumoegen, Mrs. M. L.,
Neustadt, Mrs. S.,
Newcombe, Mrs. Charles M.,
Newson, William M.,
Newton, F. Maurice,
Nichols, Acosta,
Nichols, Mrs. George,
Nichols, Mrs. John W. T.,
Nickerson, Hoffman,
Nicoll, Miss Annie,
Nicoll, Mrs. Benjamin,
Nisbett, Dr. J. Douglas,
Norman, Mrs. Bradford,
Norman, Edward A.,
Norris, Charles, M.D.,
Norris, Miss Fanny,
North, George B.,
Norton, Mrs. Edwin,
Notman, George,
Notman, Howard,
Noyes, D. Chester,
Ochs, Adolph S.,
O'Conor, John C.,
O'Donohue, Miss Teresa R.,
Offerman, John,
Ogden, Charles W.,
Ogden, Miss Mary F.,
Ogle, Mrs. Ponsonby,
O'Gorman, Mrs. Daniel,
Ohmeis, John,
Olcott, Dudley,
Olin, Mrs. Stephen H.,
Olney, Elam Ward,
Openhym, George J.,
Oppenheimer, David E.,
Ordway, Samuel H.,
O'Rourke, Mrs. P. F.,
Orth, Charles D., Sr.,
Otheman, Mrs. Frances W.,
Otis, Mrs. George L.,
Otis, Mrs. Harold,
Outerbridge, Paul, M.D.,
Outhwaite, Leonard,
Ovington, Charles K.,
Paddock, Mrs. Eugene H.,
Paddock, Mrs. Robert L.,
Page, Arthur W.,
Paine, Mrs. Augustus G.,
Paine, Ogle Tayloe,
Palmer, Carleton H.,
Palmer, Edgar,
Palmer, Howard,
Palmer, Dr. T. S.,
Parish, Wainwright,
Parker, Herbert,
Parker, Winthrop,
Parks, Elton,
Parsons, Miss Mary,
Parsons, Schuyler,
Parsons, William Barclay,
Partridge, Dr. Edward L.,
Patterson, Henry Stuart,
Patterson, Rufus L.,
Paulding, Charles C.,
Payne, Mrs. Henry W.,
Peabody, Stephen,
Peacock, Mrs. Charles A.,
Peck, Charles E.,
Peck, E. Stuart,
Peck, Morton R., M.D.,
Peckham, Mrs. Wheeler H.,
Pell, James D.,
Pell, Stephen H. P.,
Pell, Walden,
Pelton, Henry C.,
Pendleton, Francis Key,
Pennoyer, Paul G.,
Perin, C. P.,
Perine, William De Nyse,

Perkins, Miss Dorothea E.,
Perkins, George W., Jr.,
Perkins, Mrs. George W.,
Perkins, Mrs. Norton,
Peters, William Richmond,
Peterson, Rudolf M.,
Petrasch, Mrs. Carl S.,
Pfeiffer, George,
Pforzheimer, Carl H.,
Pforzheimer, Walter,
Phelps, Dr. Gouverneur M.,
Phelps, Mrs. Sheffield,
Piatti, Dr. Virgil C.,
Pickhardt, Carl,
Pickhardt, Dr. Otto C.,
Pickhardt, W. P.,
Pierrepont, R. Stuyvesant,
Pierson, Gen. J. Fred,
Pinchot, Gifford,
Pinchot, Mrs. Minturn,
Pine, Walter W.,
Pirie, S. C.,
Pitney, Mrs. J. O. H.,
Placek, L. J., M.D.,
Plant, Henry B.,
Platt, Henry B.,
Platt, Livingston,
Poel, Frank,
Polk, Frank L.,
Pollitzer, Dr. S.,
Pomroy, Daniel E.,
Pond, Miss Florence L.,
Pool, Dr. Eugene H.,
Poor, Henry V.,
Pope, G. D.,
Pope, Mrs. James E.,
Popper, Mrs. William C.,
Porter, Alexander J.,
Porter, Louis H.,
Post, Abram S.,
Post, George B.,
Post, Richard Howell,
Potter, Miss Blanche,
Potter, J. W. Fuller,
Potter, R. Burnside,
Pottier, Auguste R.,
Potts, Charles E.,
Potts, William Brevoort,
Powell, Stephen A.,
Powers, Mrs. John C.,
Pratt, Alexander D. B.,
Pratt, A. G.,
Pratt, Mrs. Harold,
Pratt, Herbert L.,
Pratt, Mrs. John T.,
Prentice, E. P., Jr.,
Prentiss, Miss Henrietta,
Prentiss, Marshall,
Preston, Veryl,
Priddy, Lawrence,
Prince, Edward S.,
Proctor, William,
Proctor, Mrs. Charles E.,
Proctor, William Ross,
Pulsifer, Harold Trowbridge,
Purdy, Harry S.,
Putnam, Irving,
Putney, Miss Eva C.,
Pyle, D. H. McAlpin,
Pyle, James McAlpin,
Pyle, Mrs. James Tolman,
Pyle, Mrs. William Scott,
Pyne, Mrs. M. Taylor,
Quintard, Dr. Edward,
Rabenau, Herman,
Raisler, Samuel,
Ranger, Stanley G.,
Rasmus, W. T.,
Raymond, H. E.,
Read, William A.,
Redmond, Miss Emily,
Redmond, Mrs. Henry S.,
Redmond, Roland L.,
Reed, Alden,
Reed, Charles,
Reed, Mrs. Chester T.,
Reed, Robert R.,
Reeds, Chester A.,

Reeves, Mark W.,
Reid, Ogden Mills,
Reid, Mrs. Ogden Mills,
Reid, Wallace,
Reid, Mrs. Whitelaw,
Reischman, Henry R.,
Reisinger, Curt. H.,
Remington, Franklin,
Remington, Seth P.,
Remsen, Lester C.,
Rennie, Robert,
Renwick, Edward Brevoort,
Requardt, John,
Resor, Stanley,
Reuhl, George Albert,
Reynal, Mrs. E. S.,
Reynolds, R. C.,
Reynolds, Thomas A.,
Rheinauer, Daniel,
Rhoades, Mrs. Lyman,
Rice, C. H.,
Rice, Grantland,
Rice, Oran Winthrop,
Richard, Miss Elvine,
Richard, Oscar L.,
Richards, Miss Edith,
Richards, Miss Helen,
Richardson, Charles E.,
Richardson, Sinclair,
Riem, Simon R.,
Righter, Miss Harriet T.,
Riis, Miss Mary,
Riker, Mrs. Charles L.,
Ripley, Julian A.,
Rives, F. Bayard,
Robbins, Miss Elizabeth B.,
Robbins, Francis L., Jr.,
Roberts, George,
Roberts, Owen F.,
Roberts, Thomas S.,
Robertson, L. J.,
Robinson, Beverley R.,
Robinson, Charles Larned,
Robinson, Mrs. Douglas,
Robinson, Edward,
Robinson, John A., M.D.,
Robinson, Karl H.,
Robinson, Miss Pauline,
Rockefeller, Mrs. J. D., Jr.,
Rockefeller, William A.,
Rodelstorfer, Mrs. Mary,
Roe, Frank O.,
Roe, Irving L.,
Roger, John,
Rogers, Francis,
Rogers, Mrs. Francis,
Rogers, G. Vernor,
Rogers, Hubert E.,
Rokenbaugh, Henry S.,
Rolle, Augustus J.,
Rollins, Frank S.,
Ronalds, Miss Thora Scott,
Roosevelt, Archibald B.,
Roosevelt, George E.,
Roosevelt, Nicholas,
Roosevelt, Philip J.,
Roosevelt, W. Emlen,
Root, Elihu,
Ropes, Chapman,
Rose, Miss Ruth,
Rosenthal, Sylvan E.,
Rossiter, Alfred,
Rossiter, Lucius T.,
Rothbart, Albert,
Rounds, R. S., Jr.,
Rowland, Thomas,
Rowley, Charles Buchanan,
Rubel, C. Adrian,
Ruhe, Louis,
Ruhl, Louis,
Rumsey, Mrs. Charles Cary,
Runyon, Clarkson,
Runyon, E. W.,
Ruperti, Justus,
Ruppmann, Adolph,
Rupprecht, Frederick K.,
Russell, Mrs. Charles H., Jr.,
Russell, Dr. John F.,

Russell, Miss Marie L.,
Rust, Harold N.,
Ryan, George F.,
Ryan, John Barry,
Ryan, Mrs. Thomas F.,
Ryle, Arthur,
Ryle, Graham,
Ryle, Miss Julia,
Sabin, Charles H.,
Sackett, Mrs. Charles A.,
Sackett, Miss Helen H.,
Sage, Dean,
Sage, Miss Elise E.,
Salm, Countess Maud,
Sampson, Charles E.,
Sand, Miss Alice L.,
Sandalgi, Rev. Paul J.,
Sandhagen, H.,
Sands, Miss Anne A.,
Sands, Mrs. Benjamin Aymar,
Sarg, F. A.,
Satterwhite, Preston P.,
Sauter, Fred.,
Sayles, Mrs. Robert W.,
Scarburgh, Robert Stuart,
Schauffler, Mrs. A. F.,
Schefer, Anton H.,
Schenck, Henry deB.,
Scheuer, A. L.,
Schieffelin, Miss Dorothy,
Schieffelin, William Jay,
Schieren, Charles A.,
Schiff, Mrs. Jacob H.,
Schilling, Miss Kathryn,
Schimmel, Siegfield,
Schley, Robert,
Schmelzel, James H.,
Schmelzel, Miss Jane E.,
Schmidt, Karl,
Schmitt, George,
Schnakenberg, D.,
Schniewind, Ewald H.,
Schniewind, H., Jr.,
Schoen, Carl,
Scholle, A. H.,
Scholle, Wm. D.,
Schonbrunn, S. A.,
Schrag, Charles A.,
Schramm, John Edward,
Schumacher, Mrs. Holder,
Schwab, Hermann C.,
Schwarz, Miss Emily E.,
Schwarz, Herbert F.,
Schwarz, Miss Ida T. L.,
Schwarzler, Albert J.,
Schweitzer, Isidor S.,
Scofield, Miss Marion,
Scott, Donald,
Scott, Mrs. Frank H.,
Scott, Thomas B., Jr.,
Scott, William,
Scoville, Herbert,
Scoville, Robert,
Scribner, Arthur H.,
Scribner, Charles,
Scribner, Mrs. Charles,
Scudder, Hewlett,
Seagle, Mrs. N. A.,
Seale, Alvin,
Sealy, Robert,
Seaman, Frank,
Seaman, Dr. Louis L.,
See, A. B.,
Sefton, Edwin,
Seidenberg, Otto,
Seidl, Leopold,
Seigle, W. R.,
Seligman, A. J.,
Seligman, Edwin R. A.,
Seligman, George W.,
Seligman, Mrs. Isaac N.,
Seligman, Jefferson,
Seligman, Joseph L.,
Seligman, Walter,
Seward, J. Perry, M.D.,
Sexton, Mrs. R. W.,
Seymour, Edmund,
Seymour, Origen,

Shattuck, A. R.,
Shaw, Frank S.,
Shaw, James M.,
Sheets, Dr. Elmer A.,
Sheffield, James R.,
Sheffield, Mrs. James R.,
Sheldon, Edward W.,
Shepard, Finley J.,
Shepard, Dr. George A.,
Shepherd, George E.,
Sherman, Thomas T.,
Shiman, David,
Shoemaker, Henry W.,
Shonnard, Horatio S.,
Sibley, Mrs. H. W.,
Sidenburg, George M.,
Siedenburg, Mrs. Reinhard,
Siegel, Jacob,
Siegel, William,
Silleck, Henry G., Jr.,
Silleck, Mrs. Henry G., Jr.,
Silverman, Gabriel,
Simmons, George G.,
Simon, Alfred L.,
Simon, Robert E.,
Simons, Miss Kate R.,
Simpson, Ernest L.,
Sinclair, Mrs. John,
Sinclair, Mrs. William,
Singer, Arthur J.,
Skeel, Dr. H. Robertson,
Skeel, Mrs. Roswell, Jr.,
Skeldon, Frank L.,
Slade, Francis Louis,
Slade, H. Lewis,
Slaughter, R. B.,
Slingerland, Leonard,
Sloan, Russell R.,
Sloan, Mrs. Samuel,
Sloane, Mrs. John,
Slocum, Thomas W.,
Sloss, A. M.,
Smidt, Thomas,
Smiley, Daniel,
Smiley, Daniel, Jr.,
Smillie, Ralph,
Smith, Albert L.,
Smith, Augustine J.,
Smith, Augustus,
Smith, Mrs. Charles G.,
Smith, C. Harold,
Smith, Mrs. Charles Stewart,
Smith, Daniel Cranford,
Smith, Emerson,
Smith, Ernest L.,
Smith, Ormond G.,
Smith, Mrs. R. Penn, Jr.,
Smith, Schuyler,
Smith, W. Stebbins,
Smyth, Clifford,
Smyth, David W.,
Smyth, Francis,
Smyth, Mrs. Francis,
Smyth, Herbert C., Jr.,
Snare, Frederick,
Snyder, Valentine P.,
Soldwedel, Frederick A.,
Sondheim, Phineas,
Spalding, H. Boardman,
Spalding, Keith,
Sparrow, Mrs. Edward W.,
Spear, James, Jr.,
Spears, Miss Ethel D.,
Speer, Peter M.,
Speers, William Christian,
Spedden, Frederic O.,
Spencer, Mrs. Edwards,
Spencer, Thomas P.,
Spindler, L. G.,
Spindler, Mrs. L. G.,
Spitzner, George W.,
Springs, Richard A.,
Squire, Eben H. P.,
Stafford, Mrs. William Frederick,
Stanley, Alfred,
Stanley, Harold,
Stanwick, Charles A.,
Starr, Howard W.,

Starr, Louis Morris,
Stearns, Louis,
Stebbins, E. Vail,
Steele, Charles,
Steffanson, Mrs. H. B.,
Stein, Mrs. Alexis W.,
Steinbeck, Edward,
Steinkamp, William H.,
Steinmetz, John A.,
Stelle, L. Randolph,
Stephens, Olin J.,
Stephens, Roderick,
Stephenson, Ralph A.,
Sterling, Mrs. Robert D.,
Stern, Albert,
Stern, Benjamin,
Stetson, J. P.,
Stevens, Frederic W.,
Stewart, Alexander M.,
Stewart, Cecil P.,
Stewart, Miss Florence,
Stewart, George C.,
Stewart, W. A. W.,
Stier, Mrs. George J.,
Stier, Joseph F.,
Stillman, James A.,
Stillman, Miss Jane,
Stillman, Joseph F.,
Stillman, Leland S.,
St. John, Dr. F. B.,
Stockwell, Miss Frances T.,
Stokes, Frederick A.,
Stone, Charles A.,
Stone, Miss Ellen J.,
Storer, Albert H.,
Storrs, Frank V.,
Stout, Andrew V.,
Straus, H. Grant,
Straus, Herbert N.,
Straus, Mrs. Nathan, Jr.,
Straus, Percy S.,
Strauss, Frederick,
Strauss, Martin,
Streeter, Daniel W.,
Stritter, Miss E. Eleanor,
Strong, James R.,
Strong, Richard A.,
Stroock, Joseph,
Stuart, Mrs. David,
Stuart, Morton,
Stuart, Robert,
Sturges, Clarence B.,
Sturgis, Reginald H.,
Suckley, Mrs. R. B.,
Sullivan, Mrs. James,
Sulzberger, Arthur Hayes,
Sutro, Lionel,
Suydam, Mrs. Lambert,
Swan, Mrs. Edward H.,
Swan, Miss Harriet S.,
Swan, James A.,
Swan, Joseph R.,
Swanson, Dr. F. J.,
Swanzy, Mrs. Francis Mills,
Swartwout, Richard H.,
Swartwout, Robert Egerton,
Swayne, Mrs. Francis Bond,
Swords, William Voorhis,
Sykes, Walter H., Jr.,
Symington, Albert,
Taft, Henry W.,
Taft, Walbridge S.,
Tag, Albert,
Talmadge, Mrs. E. T. H.,
Tanenbaum, Moses,
Tappin, Lindsley,
Taylor, Mrs. Henry Osborn,
Taylor, Herbert C.,
Taylor, James B.,
Taylor, Mrs. Moses,
Taylor, Robert Coleman,
Taylor, William A.,
Taylor, William R. K.,
Tenney, Daniel G.,
Terry, Edmund R.,
Terry, Mrs. Harriet Devotion,
Terry, John T.,
Terry, Mrs. John T.,

Terry, Roderick, Jr.,
Terry, Wyllys,
Thatcher, Mrs. John S.,
Thatcher, Archibald G.,
Thatcher, Mrs. T. D.,
Thaw, J. C.,
Thayer, Harry Bates,
Thayer, Robert H.,
Thebaud, Mrs. Paul,
Thees, John D.,
Thierrot, Charles H.,
Thomas, Mrs. Howard L.,
Thompson, William Boyce,
Thompson, James L.,
Thorne, Charles Stockton,
Thursby, Sherman,
Thursby, Mrs. Sydney,
Tiedemann, Henry F.,
Tiedemann, Theodore,
Tiffany, G. Stanton,
Tiffany, Mrs. G. Stanton,
Tiffany, Louis C.,
Tilt, Albert,
Tilton, Mrs. Joseph W.,
Timme, Walter, M.D.,
Timolat, James G.,
Tinker, Edward R.,
Tinque, William J.,
Tison, Alexander, Jr.,
Titus, Robert R.,
Todd, W. Parsons,
Tombs, Mrs. Helen Glidden,
Tompkins, Miss Augusta N.,
Townsend, Mrs. E. M.,
Townsend, Edwin S.,
Townsend, Howard,
Townsend, Major J. Henry,
Travis, John C.,
Tree, Ronald,
Trench, C. J.,
Trench, Charles S.,
Trimble, Arthur R.,
Trimble, Mrs. Richard,
Trumbull, Walter,
Truslow, Henry A.,
Tucker, Mrs. Agnes,
Tucker, Carll,
Tucker, John,
Tuckerman, Mrs. Eliot,
Tuckerman, Paul,
Tudor, Harry E.,
Turck, Dr. Fenton B.,
Turnbull, Arthur,
Turnbull, Mrs. Ramsay,
Turnbull, William,
Turner, Spencer,
Turnure, George E.,
Tweed, Harrison,
Tyler, Mrs. Victor Morris,
Tyrode, Dr. Maurice V.,
Tyrode, Mrs. Maurice V.,
Valentine, Miss Bessie,
Valentine, Miss Marguerite E.,
Van Anda, Carr V.,
Van Beuren, Dr. Frederick T., Jr.,
Van Cortland, Augustus,
VanderBent, Teunis J.,
Vanderbilt, William H.,
Vanderlip, Frank A.,
Vanderlipp, W. T.,
Vanderpoel, Mrs. John A.,
Van der Poel, Mrs. Samuel Oakley,
Van Gerbig, Barend,
Van Ingen, Dr. Philip,
Van Norden, Ottomar H.,
Van Nostrand, B. T.,
Van Rensselaer, Kiliaen,
Van Sinderen, Howard,
Van Vleck, Ernest Alan,
Van Wezel, Mrs. Louisa,
Varian, Wilbur L.,
Veatch, A. C.,
Vernam, Clarence C.,
Vernay, Arthur S.,
Vettel, Miss Rosa,
Vicat, Mrs. J. Fenimore C.,
Vietor, Thomas F.,
Villa, Alfonso P.,

Vineberg, Dr. Hiram N.,
Voislawsky, Dr. Antonie P.,
Voelker, John Ph.,
Vogelstein, Ludwig,
Voight, William L.,
Von Bergen, W. H.,
von Bernuth, Frederick A., Jr.,
von Mayhoff, Mrs. Charles
von Zedlitz, Mrs. Anna M.,
Vreeland, Frederick K.,
Vuilleumier, Dr. Jules A.,
Wadleigh, Francis Rawle,
Wadsworth, W. M.,
Wagner, Miss H. C.,
Wainwright, Dr. J. M.,
Wakelee, Justus I.,
Walbridge, Henry D.,
Walker, Bryant,
Walker, Gustavus A.,
Walker, John B., M.D.,
Walker, Miss Miriam Dwight,
Walker, Stuart,
Waller, Stewart,
Wallerstein, Dr. Max,
Walter, Martin,
Walter, William I.,
Warburg, Paul M.,
Warburton, Barclay H., Jr.,
Ward, Artemas, Jr.,
Ward, Freeman F., M.D.,
Ward, Melbourne,
Ward, Dr. Wilbur
Ward, William F.,
Wardner, Henry Steele,
Wardwell, Allen,
Warner, George H.,
Warren, Mrs. Frank Hamilton,
Warren, Miss Helen Louise,
Washburn, Thomas G.,
Washburn, William Ives,
Washington, George A., 2nd,
Wasserman, Samuel,
Waterbury, Miss Florence,
Waterhouse, M. M., M.D.,
Watson, Charles F.,
Watson, Mrs. J. Henry,
Watt, Thomas L.,
Watts, Miss Isabelle A.,
Weatherbee, Mrs. Edwin H.,
Webb, F. Egerton,
Webb, J. Griswold,
Webb, J. Louis,
Webb, Vanderbilt,
Webb, Mrs. Vanderbilt,
Webb, Mrs. William Seward,
Webb, W. Seward, Jr.,
Weber, Orlando F.,
Webster, H. M.,
Webster, Mrs. J. E. Burdick,
Weed, Mrs. Alden H.,
Weeks, Andrew Gray,
Weimer, Henry L.,
Weiss, Mrs. Charles,
Weiss, S. J.,
Weitling, William W.,
Welch, Henry K. W.,
Welch, Lewis S.,
Welcher, Miss Alice L.,
Welldon, Samuel A.,
Wells, Mrs. Edward H.,
Wells, Miss Mary P.,
Wentz, Theodore,
Wessell, Arthur L.,
West, Mrs. Madelaine H.,
Westover, M. F.,
Wheelock, William H.,
Wheelwright, Dr. Joseph S.,
White, Miss Caroline,
White, Miss Edith Hamilton,
White, Mrs. E. Lawrence,
White, Mrs. Glenn W.,
White, Harold T.,
White, J. G.,
White, Leonard D.,
White, Miss Martha R.,
Whitehouse, William F.,
Whiting, Miss Gertrude,
Whitman, Clarence,

Whitman, William, Jr.,
Whitney, Arthur E.,
Whitney, Mrs. George,
Whitney, H. F.,
Whitney, Mrs. Howard F.,
Whitney, Travis H.,
Whitridge, Arnold,
Whittemore, George W.,
Whittemore, Howard,
Whittlesey, M. M.,
Wiborg, F. B.,
Wickenhauser, Mrs. M. O.,
Wickersham, Cornelius W.,
Wickersham, George W.,
Wickham, Miss F. Ethel,
Wiese, William,
Wilbur, James Benjamin,
Wilcox, T. F.,
Wile, Edwin,
Wilkins, F. H.,
Willcox, Miss Mary A.,
Willets, Chester A.,
Willets, J. Macy,
Williams, Arthur,
Williams, Ernest,
Williams, H. Pushae,
Williams, Mrs. Percy H.,
Williams, Ralph J.,
Williams, Richard H., Jr.,
Williams, Roger Butler, Jr.,
Williams, William H.,
Williamson, G. De Witt,
Willis, W. P.,
Williston, James R.,
Wilson, Charles B.,
Wilson, Henry William,
Wilson, R. Thornton,
Wilwerding, W. J.,
Wimpfheimer, Charles A.,
Wing, L. Stuart,
Wing, S. Bryce,
Winslow, Pearson,
Winter, Emil,
Winter, Ezra,
Wise, Edmond E.,
Wise, Robert Lovis,
Witherbee, Mrs. Frank S.,
Wittman, Joseph,
Woglom, William H., M.D.,
Wolf, Ralph,
Wood, Arnold,
Wood, Edward R., Jr.,
Wood, Gilbert Congdon,
Wood, J. Walter,
Wood, Mrs. M. F.,
Wood, Mrs. Turnbull,
Wood, William Congdon,
Woodhouse Company, J. S.,
Woodward, Kenneth N.,
Woodward, Mrs. William,
Wooley, C. M.,
Woolsey, George M.,
Worcester, Wilfred J.,
Wray, Miss Julia,
Wright, Miss Alice I.,
Wright, Mrs. Anna Rose,
Wright, Miss Irene E.,
Wulp, William C.,
Wunderlich, Hermann,
Wurm, Dr. Carl, Jr.,
Wylie, James S.,
Yorke, George M.,
Young, Miss Annette Innis,
Young, Mrs. A. Murray,
Young, Roland Keith,
Zabriskie, Miss Ethel,
Zabriskie, George A.,
Zanetti, J. Enrique,
Zeno, Norman L.,
Zimmerman, A. G.,
Zinsser, August,
Zinsser, William H.,
Zipf, Karl,
Zoller, Charles,

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Mrs. Clarence G. Michalis, *Chairman, Junior Auxiliary*
Miss Pauline Robinson, *Chairman, Ladies' Auxiliary, Children's Excursions, Zoological Park*

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Baker, Mrs. George F., Jr.,
Clark, Mrs. J. Averell,
Coogan, Mrs. Jay,
Cross, Mrs. W. Redmond,
Cuyler, Miss Eleanor de Graff,
Dodge, Mrs. Cleveland E.,
Field, Mrs. William B. Osgood,
Filley, Mrs. Oliver D.,
Fincke, Mrs. Reginald,
Forsythe, Mrs. Harry,
Gerry, Mrs. Robert L.,
Grant, Mrs. De Forest,
Hamilton, Mrs. Morgan,
Harriman, Mrs. J. Borden,
Hastings, Mrs. Thomas,
Hoyt, Mrs. Henry R.,
McKay, Mrs. Robert Gordon,
Martin, Mrs. Shelton E.,
Maynard, Mrs. Walter E.,
Niles, Mrs. William White,
Olin, Mrs. Stephen H.,
*Osborn, Mrs. Henry Fairfield,
Osborn, Mrs. Fairfield, Jr.,
Parsons, Miss Mary,
Pyne, Mrs. Percy R.,
Rockefeller, Mrs. William G.,
Roosevelt, Mrs. Kermit,
Thorne, Mrs. William V. S.,
Tilford, Mrs. Henry M.,
Trimble, Mrs. Richard,
Webb, Mrs. Alexander S.,
Whitney, Mrs. George,
Whiton, Mrs. Henry D.,
Witherbee, Mrs. Frank S.,
Wood, Mrs. Turnbull,

Junior Auxiliary

Abbott, Hope,
Abbott, Nancy,
Abbott, Polly,
Adams, Agnes,
Adams, Betty,
Adams, Billy,
Adams, Hugh White,
Adams, Janet Shearson,
Adams, Mary Morris,
Adams, Phyllis Ann,
Adams, Robert J., Jr.,
Auchincloss, Barbara,
Auchincloss, Hugh,
Bakewell, Thomas,
Banks, Cynthia,
Banks, Maud,
Banks, Vieva,
Barrows, Muriel,
Battie, Anne,
Benjamin, Anne,
Benjamin, Emily,
Benjamin, Henry Rogers,
Benjamin, Mary,
Benjamin, Samuel,
Benjamin, Sarah,
Benjamin, Townsend,
Bird, Barbara,
Bird, Mary Leighton,
Bird, Olivia Singleton,
Boardman, Bradford N.,
Boardman, Lansdale, Jr.,
Bonner, Paul H.,
Bottomley, Susan,
Browning, Elizabeth,
Browning, Josephine,
Burke, Stanley,

* Deceased

Burke, Waring,
Chase, Charles A.,
Church, Charles T., 2nd,
Church, Nancy,
Coddington, James I.,
Constable, John Pierrepont,
Constable, Nancy,
Constable, Wanda,
Coogan, Alexander Gordon,
Coogan, Fairfield Gordon,
Coogan, Rhoda Gordon,
Cotton, Helen,
Cutler, John W.,
Cutler, Judith,
Cutler, Patricia,
Cutler, Peter S.,
Cutler, Susan,
Darlington, Henry V. B., Jr.,
Darlington, Jane,
Darlington, Peter,
Degener, Edward M.,
Degener, Lois Ann,
Degener, Paul Arnold,
Delafield, Peggy,
Dickerman, Cornelia,
Dickey, Charles D., Jr.,
Dickey, Mary Sloan,
Dickey, S. Whitney,
Dowd, Andrea,
Duryee, Nina,
Duryee, Samuel Sloan,
Eggert, Mary W.,
Eldridge, Elaine,
Eldridge, Mary Althea,
Fahnestock, Clare,
Fahnestock, Mary Lee,
Ferry, Frances T.,
Ferry, John M.,
Ferry, May M.,
Filley, Mary Grafton,
Finch, Anne Crane,
Finch, Charles,
Finch, Edward Ridley, Jr.,
Finch, Henry LeRoy,
Finch, John,
Finch, Kathryn,
Finch, Louise,
Finch, Mary Noelle,
Finch, Stephen,
Fisher, Eleanor,
Fisher, Joel Ellis,
Ford, Laurence,
Freauff, Elaine,
Freeman, David,
French, Franklin Q.,
French, Leigh H.,
French, Phyllis B.,
French, Virginia,
Gade, Ruth A.,
Given, David,
Given, Dorothy,
Goddard, Margaret,
Goddard, Stanhope,
Godwin, Betty,
Godwin, Mildred,
Gray, Marion S.,
Green, Georgina W.,
Grosvenor, Anne,
Hadden, Kenneth,
Hadden, Lydia,
Haight, Frances T.,
Haight, Frederick E.,
Henry, John Campbell,
Henry, Louise F.,
Herrick, Gerard,
Herrick, Sue,
Higgins, Anita,
Higgins, Faith,
Higgins, Trumbull,
Higginson, James T., Jr.,
Higginson, Thomas Lee,
Hildreth, Edward,
Hildreth, Priscilla,
Hope, Marion,
Ijams, John H.,
Ijams, Maitland T.,
Ijams, Seton,
Irving, Alexander D.,
Irving, Evelyn du Pont, Jr.,
Iselin, Peter,

James, Beverly,
James, Henry, Jr.,
James, Morgan N. B.,
Jameson, Mary,
Jones, Howland,
Kilpatrick, Eugenia,
Kilpatrick, Frances,
Kingsford, Frances Hamilton,
Kingsford, Helen Lawrence,
Kingsford, Irving B., Jr.,
Kinnicut, Dorothy May,
Kissel, Abby Thorn,
Kissel, William Thorn,
Knapp, Elizabeth B.,
Lee, Frank F.,
Lloyd-Smith, Clara,
Lloyd-Smith, Marjory,
McGovern, Coleman B., Jr.,
McGusty, Henrietta,
McGusty, James C.,
McGusty, Kathleen,
McGusty, Mary,
McGusty, Robert T., Jr.,
McIlvaine, Archibald G., Jr.,
McIlvaine, John Curtis,
Marsh, Isabel,
Marsh, Judith,
Marston, George V. W.,
Marston, Hunter S., Jr.,
Martin, Jane,
Martin, Laura,
Martin, Myra,
Marvin, Diana,
Marvin, Langdon, Jr.,
Michalis, Clarence Fahnestock,
Michalis, Helen Louise,
Michalis, Henry C. Day,
Michalis, Martha Margaret,
Milbank, Margaret,
Millikin, Anne,
Milliken, Gerish, Jr.,
Millikin, Roger,
Mixsell, Mallory,
Mixsell, Mary B.,
Moffat, Keith,
Moore, Allison,
Moore, John,
Moore, Nina,
Morrill, F. Whitney, Jr.,
Morrill, Joyce Sheldon,
Morrill, Sheldon,
Morris, Betty,
Morris, Leta,
Myrick, Billy,
Myrick, Cynthia,
Myrick, Marion,
Myrick, Shirley,
Namm, Nancy H.,
Nickerson, Eugene H.,
Noyes, David,
Noyes, Frances,
Noyes, Jean,
O'Brien, Marie Louise,
O'Connor, Anne Hall,
O'Connor, Elizabeth Hopkinson,
O'Connor, Emily Gilpin,
O'Connor, Frances Barnard,
Orvis, Barbara,
Orvis, Clay,
Osborn, Alexander Perry, Jr.,
Osborn, Alice Dodge,
Osborn, Anne Steele,
Osborn, Bayard,
Osborn, Cynthia,
Osborn, David,
Osborn, Frederick,
Osborn, John J.,
Osborn, Josephine Adams,
Osborn, Lucretia Perry,
Osborn, Margaret L.,
Osborn, Mary Steele,
Osborn, Natalie Hazard,
Osborn, Shirley Marjorie,
Osborn, Virginia S.,
Osborn, William H.,
Paine, Augustin D.,
Paine, Eustis,
Pardee, Althea,
Pardee, Hobart,
Pardee, Margaret,

Pardee, Trevor,
Parsons, Livingston, Jr.,
Parsons, Sarah Livingston,
Peale, Patricia,
Pell, Dorinda T.,
Pell, Gladys S.,
Pell, Mary Duane,
Pennoyer, Paul,
Pennoyer, Virginia,
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Phillips, Edward,
Phillips, Lawrence, Jr.,
Poor, Dan,
Porter, Lachlan,
Post, Charles,
Post, Joy,
Post, Julester Lena,
Post, Julia,
Pratt, Anne,
Pratt, Caroline,
Pratt, Charles, Jr.,
Pyne, Insly,
Pyne, Rivington,
Quaid, William, Jr.,
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Read, Curtis S.,
Read, David W.,
Read, William,
Revillon, Leone,
Richard, Harold,
Richard, Phyllis,
Richard, Trumbull,
Richard, Vera,
Richmond, H. Thomas,
Richmond, Robert,
Riggs, Peter,
Riley, Edgar Alsop,
Riley, Mary Alsop,
Robson, Gerald,
Rogers, Catharine,
Roosevelt, George E., Jr.,
Roosevelt, Margaret C.,
Roosevelt, Medora T.,
Roosevelt, Theodora,
Ross, Dorothy R.,
Ross, Reuben J., Jr.,
Salisbury, Lucius, Jr.,
Schieffelin, Anne Louise,
Schieffelin, Mary S.,
Simmonds, Jules G.,
Simmonds, Sofia,
Skidmore, Samuel T., Jr.,
Sloane, Grace Elsie,
Stickney, Henry A.,
Storer, Adelaide,
Taylor, Eugene Shaw,
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Twining, Goffrey,
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Walker, Joseph, 3rd,
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Webb, Frederick,
Webb, Osborn,
Webb, Richard,
Weber, Clare S.,
Weber, Orlando F., Jr.,
Wellington, Herbert G., Jr.,
Wellington, Thomas D.,
West, Davenport, Jr.,
West, John P.,
Whitney, Elizabeth B.,
Whitney, Martha Phyllis,
Whitney, Robert B.,
Wigham, Reginald E.,
Wigham, Rosanne L.,
Winslow, Harriet A.,
Winslow, Mary Olive,
Winslow, T. Scudder,
Woolverton, Hugh,
Woolverton, William,

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Seton, Ernest Thompson,
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Stockard, Dr. Charles R.,
Stunkard, Prof. Horace W.,
Thayer, Gerald B.,
Tilney, Dr. Frederick C.,
Townsend, Dr. Charles H.,
Wilson, Prof. Edmund B.,
Yerkes, Dr. Robert M.,

† The qualifications for this class rest solely upon scientific achievement.

* Deceased

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Dr. H. M. Wegeforth,
Dr. W. Reginald Wheeler,
G. Tyrwhitt-Drake,

* Deceased

CHARTER

OF THE

New York Zoological Society

CHAPTER 435, LAWS OF 1895.

AN ACT to incorporate the New York Zoological Society and to provide for the establishment of a zoological garden in the city of New York.

As amended by Chapter 146 of the Laws of 1902; by Chapter 240 of the Laws of 1910; and by Chapter 19 of the Laws of 1930.

See Chapter 432 of the Laws of 1900.

See Charter of the city of New York, Section 626 of the Laws of 1901.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

SECTION 1. Charles A. Dana, Oswald Ottendorfer, Andrew H. Green, William H. Webb, Henry H. Cook, Samuel D. Babcock, Charles R. Miller, George G. Haven, J. Hampden Robb, Frederick W. DeVoe, J. Seaver Page, Rush C. Hawkins, David James King, Wager Swayne, Charles A. Peabody, Jr., Charles E. Whitehead, Charles R. Flint, Samuel Parsons, Jr., Mornay Williams, Henry E. Gregory, Isaac W. Maclay, Isaac Rosenwald, Hugh N. Camp, Andrew D. Parker, Cornelius Van Cott, William F. Havemeyer, Frederick Shonnard, William W. Thompson, Alexander Hadden, Edward L. Owen, John H. Starin, Rush S. Huidekoper, William W. Goodrich, Albert H. Gallatin, Frederick S. Church, Edward C. Spitzka, Robert L. Niles, Madison Grant, C. Grant La Farge, William Van Valkenburg, and such other persons as may, under the provisions of its by-laws become members of the corporation hereby created, are hereby created a body corporate and politic, by and under the name of New York Zoological Society.

SEC. 2. Said corporation shall have power to establish, maintain and control zoological parks, gardens, or other collections for the promotion of zoology and kindred subjects, and for the instruction and recreation of the people. Said corporation may collect, hold, and expend funds for zoological research and publication, for the protection of wild animal life, and for kindred purposes, and may promote, form, and co-operate with other associations with similar purposes, and may purchase, sell, or exchange animals, plants, and specimens appropriate to the objects for which it was created.

SEC. 3. The trustees of said corporation shall have power to make and adopt by-laws for the management and government of its affairs and business, for the admission, suspension, and expulsion of its members, and for the terms and conditions of membership; to prescribe the number and mode of election of its officers; to define their duties; to provide for the safe-keeping of its property, and from time to time to alter and modify its By-laws.

SEC. 4. The affairs and business of said corporation shall be managed and controlled by a board of trustees, the number of whom shall be prescribed by the by-laws. The first board of trustees shall be divided by lot into three classes, equal in number, one of which classes shall hold office for one year, another for two years, and the other for three years; and all persons elected to be trustees at any subsequent election shall hold office for three years, and until

others are elected in their stead. There shall be a president, two vice-presidents, treasurer and secretary, to be elected by the board of trustees annually, who shall hold office until others are elected in their stead. The first meeting under this act may be held at any time upon a notice of five days, signed by any five of the incorporators named in the first section of this act, fixing a time and place for such meeting, a copy whereof shall be mailed to each of said incorporators at his usual post-office address, and twelve of such incorporators shall be a quorum for the purpose of organization, adoption of by-laws, and election of officers. No trustee of said corporation shall be interested, directly or indirectly, in any contract concerning its property or affairs.

SEC. 5. Said corporation may raise money by the issue of bonds, secured by a mortgage on any or all of its property not acquired from said city or state.

SEC. 6. Said corporation may take, purchase, and hold real and personal estate necessary for the purpose of its incorporation, and shall possess the general powers and be subject to the restrictions and liabilities prescribed in Article II of Chapter 23 of the Consolidated Laws, entitled "General Corporation Law," being chapter 28 of the Laws of 1909.

SEC. 7. The commissioners of the sinking fund of the said city are authorized in their discretion to allot, set apart, and appropriate for the use of said corporation, any of the lands belonging to said city north of One Hundred and Fifty-fifth Street, but not in the Central Park, and such appropriation may be revoked if, after the expiration of five years from the passage of the act, a zoological garden is not established thereon; said grounds thus set apart and appropriated shall be used for no purpose whatsoever except those aforesaid. As soon as any lands are set apart the Mayor of the said city of New York and the President of the Department of Parks of said city, shall become and be *ex-officio* members of the board of trustees of said corporation. If at any time the animals now composing the menagerie of Central Park shall be removed therefrom by the authorities having charge thereof, said authorities may make an arrangement with the incorporators named in this act or the corporation formed by them for leasing or sale of such animals to such incorporators or corporation, and said incorporators or corporation shall have a preference over any other person or corporation in respect thereto upon the same terms which said authorities could make with any such other person or corporation, or upon such other terms as to such authorities may seem proper, but nothing herein provided shall be construed as giving the commissioners of the Department of Public Parks authority to sell, lease, transfer, or in any other wise dispose of said animals or other property connected with or belonging to said menagerie.

SEC. 8. Admission to the said gardens shall be free to the public for at least four days, one of which shall be Sunday, in each week, subject to such rules and regulations as shall be prescribed by said corporation.

SEC. 9. This act shall take effect immediately.

AN ACT to amend chapter four hundred and thirty-five of the laws of eighteen hundred and ninety-five, entitled "An act to incorporate the New York Zoological Society and to provide for the establishment of a zoological garden in the City of New York" in relation to real and other property.

Became a law May 26, 1917, with the approval of the Governor. Passed, three-fifths being present.

ACCEPTED BY THE CITY.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

SECTION 1. Chapter four hundred and thirty-five of the laws of eighteen hundred and ninety-five, entitled "An act to incorporate the New York Zoological Society and to provide for the establishment of a zoological garden in the City of New York," as amended by chapter two hundred and forty of the laws of nineteen hundred and ten, is hereby further amended by adding thereto a new section to read as follows:

7-a. The board of estimate and apportionment in the City of New York may, in its discretion, set apart and appropriate upon such conditions as it may deem expedient for the extension and development of the work and objects of the said New York Zoological Society, the whole or any part of that portion of Bronx Park in the City of New York, lying to the south of Pelham avenue and Pelham parkway, for the use of the said New York Zoological Society, the said lands so to be appropriated to be described particularly in the order of the board of estimate and apportionment hereby authorized. The said board of estimate and apportionment may also, in its discretion at the time of setting apart and appropriating said lands or any part thereof to the New York Zoological Society, and annually thereafter, in addition to any sum or sums which it may have appropriated for the support and maintenance of the New York Zoological Park, appropriate to the use of said society, such sum or sums in its discretion for the care and maintenance of the additional lands that may be allotted to the said society under the authority hereby conferred, as it may deem best.

2. This act shall take effect immediately.

New York Zoological Society

AND THE

New York Aquarium

CHAPTER 441, LAWS OF 1902.

AN ACT to authorize a further appropriation to the New York Zoological Society for the support of the New York Aquarium.
As amended by Chapter 239 of the Laws of 1910.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

Chapter four hundred and forty-one of the laws of nineteen hundred and two, entitled "An Act to authorize a further appropriation to the New York Zoological Society for the support of the New York Aquarium," is hereby amended to read as follows:

SECTION 1. The Board of Estimate and Apportionment of the City of New York may annually, in its discretion include in the budget for the then next ensuing financial year, in addition to any sum or sums which may be appropriated for the adequate support and maintenance of the New York Zoological Park or gardens, situated in the borough of the Bronx, and administered and controlled by the New York Zoological Society, a further sum or sums, in its discretion for the use of the said New York Zoological Society, provided, however, that the additional appropriation hereby authorized shall be made only in case an agree-

ment is entered into between the said New York Zoological Society and the City of New York, acting by its Board of Estimate and Apportionment for the adequate keeping, maintenance, extension, preservation and exhibition of the building and approaches thereto and collection of aquatic animals and plants contained therein, known as the New York Aquarium, situated in the Battery Park in the Borough of Manhattan in said city, and also for furnishing opportunities for study, research and publication in connection with said collections, which contract the said Board of Estimate and Apportionment is hereby expressly authorized, in its discretion, to make upon such terms and conditions as may be agreed upon with the said New York Zoological Society, and which contract shall also provide how the duty of the commissioner of parks for the borough of Manhattan and Richmond in respect to maintaining the said aquarium now imposed upon him by law shall be performed.

Sec. 2. This act shall take effect immediately.

GRANT OF SOUTH BRONX PARK

TO THE

New York Zoological Society

At a special meeting of the Commissioners of the Sinking Fund, City of New York, held on March 24, 1897, a resolution was passed allotting South Bronx Park for the use of the New York Zoological Society upon conditions entirely satisfactory to the Society.

The full text of the resolution is as follows:

WHEREAS, by chapter 435 of the Laws of 1895, entitled "An act to incorporate the New York Zoological Society and to provide for the establishment of a Zoological Garden in the City of New York," it is provided that the Commissioners of the Sinking Fund of the City of New York are authorized in their discretion to allot, set apart and appropriate, for the use of said corporation, any of the lands belonging to said city north of 155th Street, but not in Central Park,

RESOLVED, that the said Commissioners of the Sinking Fund do hereby allot, set apart and appropriate for the use of said corporation, a tract of land in the southern portion of Bronx Park, embracing an area of about 261 acres, and consisting of so much of said park as lies south of Pelham Avenue, upon the following terms and conditions, to wit:

First. That said grounds thus set apart and appropriated, shall be used for no other purpose whatsoever except for the sole purposes of said Zoological Garden as the same are specified in the act aforesaid, and that said appropriation of said lands hereby made shall be revoked if, after the expiration of three years from the date of the commencement of the work by the Park Department for the necessary improvement of the grounds as referred to and described in the sixth paragraph of this Resolution, a Zoological Garden is not established upon said tract of land.

Second. That the original equipment of buildings and animals for said Zoological Garden shall be paid for from funds contributed by the New York Zoological Society, and that said Society shall, before it enters into occupation of the allotted land and within one year from the date of this Resolution, raise one hundred thousand dollars by subscription, and within three years from the date of the commencement of the work by the Park Department for the necessary improvement of the grounds as referred to and described in the sixth paragraph of this Resolution, the further sum of at least one hundred and fifty thousand dollars. If the said Society shall fail or neglect to raise said funds within the periods respectively fixed therefor, it shall, on demand of the Commissioners of the Sinking Fund, surrender to the City of New York the land allotted to it as a site for said Garden, and all improvements made thereon. The said Society shall not mortgage its buildings or animals, or any of its property within said Garden, which is directly or indirectly maintained by the City of New York.

Third. The said Zoological Society shall have the power to establish an endowment fund from the donations and bequests, which fund shall be used solely, unless otherwise specified by the donors thereof, for the general uses and purposes of said Society. The funds of said Society, other than the sums contributed to said endowment fund, shall be expended upon buildings and other enclosures for animals, for the collections of animals, and for the general purposes of the Society. Among the funds thus to be expended shall be the subscriptions of members, life members and patrons, and all cash donations to said Society, other than those made for the purposes of the endowment fund, and all moneys derived from the sale of animals; and the net proceeds of the privileges that may be developed in said Garden, such as refreshments, boating, riding animals, the sale of photographs, etc., shall be used for, and expended in the increase of the collections; and payments from the funds of such Society, including the endowment fund, shall be made directly from the treasury of the Society.

Fourth. The library, pictures, maps, office furniture, and other movable property purchased and owned by the Society shall remain the property of the Society, and excepting living animals, may be removable at will, and every piece of such property shall bear a distinguishing mark. But no buildings, aviaries or cages may be sold or removed by said Society without the written consent of the Board of Parks. All property paid for from the maintenance fund, hereinafter referred to, shall belong to the City.

Fifth. So long as the said Society is entrusted with the control and management of the said Zoological Garden, and the city provides for the proper maintenance and care of the animals and collections therein, the said Society shall not remove any of its animals or collections for exhibition elsewhere without the consent of the Board of Parks, but if the City shall ever cease to provide for the proper maintenance and care of the said animals and collections, the said Zoological Society shall have the right, upon giving three months' notice in writing to the Board of Parks, to remove the said animals and collections owned by it. The said Society shall have the right to improve its collections by the exchange of animals, and also by the sale of animals not needed for exhibition; but all moneys derived from such sale or exchange of animals shall be used only for the purpose of increasing said collections.

Sixth. The City of New York shall annually provide the necessary funds for the maintenance and care of the Zoological Garden, its buildings, inclosures and other improvements made from time to time therein, and the animals and collections of said Society; but the appropriation for the first year is not to exceed Sixty thousand dollars ($60,000). It shall be the duty of the City to provide from such sums or appropriations, as may be applicable thereto, the cost of the necessary improvement of the ground prior to the erection of buildings and inclosures, including such roads, walks, fences, grading, water supply, drainage and heating as may be or become necessary for the proper development of said Zoological Garden, all of which work of preparation and construction shall be performed in conformity with the plans therefor to be agreed upon between the Park Department and the Zoological Society. The said City shall also furnish the necessary supply of water, and adequate police patrol and protection, and the salaries of all persons employed directly in the service and development of the Zoological Garden shall be paid from the maintenance fund, and from such other funds as may be available for and applicable to the purpose. Payments from the maintenance fund shall be made upon vouchers filed with the Comptroller and drawn in such form as he may direct; and said Society shall annually render the year then past, made on account of the said Zoological Garden, all revenues and resources thereof, a statement of the number of the members of said Society, of the donations re-

ceived and of the number of animals in the Garden, the chief items of improvement made during the year, and all other information that the said Mayor may require.

Seventh. The Park Department shall at all times have access to the grounds, buildings and other inclosures of the said Zoological Society for general police visitation and supervision, and for all other lawful purposes. Prior to the commencement of any work on said Garden the general plan therefor shall be submitted to and approved by the Park Board, and all subsequent plans for buildings, roadways and paths shall also be so submitted and approved. No living tree shall be cut down or removed, except by the express authority of said Park Department, but the said Zoological Society shall have the right to remove dead trees and such bushes as it may be necessary to remove in the preparation of inclosures for animals, or in making other improvements. The said Department of Parks shall plant such and so many shade trees, aquatic plants, shrubs and flowers as may be necessary to enhance and secure the seclusion, beauty and usefulness of the park, and shall do and perform all the work of gardening necessary to carry out the general plan of improvement and the subsequent plans as may be agreed upon between the said Zoological Society and the said Department of Parks.

Eighth. The said Zoological Garden and its collection shall be free to the public without the payment of any admission fee or gratuity whatsoever for not less than seven hours a day on at least five days of the week, one of which shall be Sunday, and also on all legal holidays and half holidays, subject to such reasonable regulations as may be made by said Society, but the said Society may close the area devoted to the collections of animals on not more than two days in each week, and on such days may charge an admission fee which shall be fixed by said Society, and all moneys derived from such admission fees shall be expended by said Society in the increase of the collections or in the improvement of said Garden or its buildings; but the portion of the grounds situated east of Boston Road, and all the Bronx River below the Boston Road bridge shall be open to the public at all times as pleasure grounds, subject to such reasonable regulations as may be adopted by said Society with the approval of the Park Department, and the occupancy of that portion of the park by herds of animals or by collections, shall be subject to the consent of the Park Department.

Ninth. The said Zoological Society shall have the right and power to appoint, direct, control and remove all persons and officers employed by them in and about the Zoological Gardens, and to fix the salaries of such persons and officers and to make promotions, but all regular employees shall be chosen, and their salaries fixed and promotions made, by reason of special fitness and ability.

Tenth. Subject to the conditions hereinbefore contained, the said Zoological Society shall exercise entire control and management over all the affairs of the said Zoological Garden.

BY-LAWS

OF THE

New York Zoological Society

As Amended May 21, 1925, December 27, 1929, and May 22, 1930.

ARTICLE I.

MEETINGS OF THE SOCIETY

Section 1. The office and place of business of the New York Zoological Society shall be in the City of New York, unless otherwise ordered.

Sec. 2. The Society shall hold its annual meeting for the election of Trustees, and other business, on the second Tuesday of January, or such day thereafter during the month of January to which said annual meeting shall adjourn.

Sec. 3. Special meetings of the Society shall be called by the Secretary, upon the request of the President or the Chairman of the Executive Committee, or at the written request of ten members.

Sec. 4. Notices of all meetings shall be mailed to each member of the Society at least three days before such meeting.

Sec. 5. At meetings of the Society twenty members shall constitute a quorum.

Sec. 6. The order of business shall be as follows:

1. Roll Call.
2. Reading of minutes not previously read.
3. Report of Executive Committee.
4. Report of Secretary.
5. Report of Treasurer.
6. Report of the Director of the Zoological Park.
7. Report of Director of the Aquarium.
8. Election of Trustees.
9. Communications.
10. Miscellaneous business.
11. Reports and resolutions.

ARTICLE II.

BOARD OF TRUSTEES

Sec. 1. The Board of Trustees shall consist of thirty-six members, together with the Mayor of New York and President of the Park Board, or Commissioner for the Bronx, who shall be members *ex-officio* of the Board.

Sec. 2. Twelve Trustees shall constitute a quorum; but seven Trustees may transact current business, and adjourn, subject to the subsequent approval of a meeting at which a quorum shall be present.

SEC. 3. The Board of Trustees shall hold an annual meeting on the twenty-seventh day of December in each year, unless said date shall fall upon a Sunday, in which event the annual meeting shall be held on the following day. The hour and place shall be fixed by the Chairman of the Board. If a quorum is lacking those present may adjourn the meeting and fix the time and place thereof. Regular meetings of the Board may also be called by the Secretary on the third Tuesdays of October and April upon the request of the President or Chairman of the Executive Committee. Special meetings of the Board shall be called at any time by the Secretary upon the request of the President or Chairman of the Executive Committee, or at the written request of five Trustees.

SEC. 4. Notices of meetings of the board shall be mailed to each Trustee at least three days before such meetings.

SEC. 5. The successors to the outgoing class of Trustees shall be elected by the Society at its annual meeting, but vacancies in the Board may be filled for the unexpired term by the Board of Trustees, or by the Executive Committee.

SEC. 6. A Nominating Committee shall be annually appointed by the Executive Committee, and shall consist of three members of the Society at large, who shall nominate and post ten days before the annual election the names of twelve persons to succeed the outgoing class of Trustees in a conspicuous place in the office of the Society.

SEC. 7. No person shall be eligible for election to the Board of Trustees except to fill vacancies, unless his name shall have been posted as a candidate by such committee, or by not less than ten members, in writing, in a conspicuous place in the office of the Society ten days before the annual election. All candidates for election as Trustees must be Life Members, Patrons, Associate Founders, or Founders of the Society.

SEC. 8. Any Trustee who shall fail to attend three consecutive meetings of the Board, unless excused by a vote of the Board, shall cease to be a Trustee.

SEC. 9. The Board of Trustees shall at its annual meeting elect a President, two Vice-Presidents, a Secretary, and Treasurer, who shall hold office for one year, or until their successors are elected. The President, Vice-Presidents, and Treasurer shall be members of the Board.

SEC. 10. The Director of the Zoological Park, the Director of the Aquarium, and all other persons employed by the Society, shall be appointed by the Board or by the Executive Committee, and shall hold office during the pleasure of the Board.

SEC. 11. The Board shall, at its annual meeting, elect an Executive Committee, Finance Committee and Auditing Committee, which shall hold office for one year, or until their successors are elected. The Board of Trustees and the Executive Committee shall also have authority to appoint such other Committees or officers as they may at any time deem advisable and to delegate to them such powers as may be necessary.

SEC. 12. The order of business of the meetings of the Board shall be as follows:

1. Roll Call.
2. Reading of minutes not previously read.
3. Report of Executive Committee.
4. Report of Secretary.
5. Report of Treasurer.
6. Report of Auditing Committee.

7. Report of Director of Zoological Park.
8. Report of the Director of the Aquarium.
9. Election of Officers
10. Election of Committees.
11. Election of new members.
12. Communications.
13. Miscellaneous business.

SEC. 13. All reports and resolutions shall be in writing, and the ayes and nays may be called on any resolution at the request of one Trustee.

SEC. 14. Whenever the funds of the Society shall permit, the Board of Trustees or the Executive Committee may award medals or other prizes for meritorious work connected with the objects of the Society.

ARTICLE III.

OFFICERS

SEC. 1. The officers of the Society shall consist of a President, two Vice-Presidents, a Treasurer, a Secretary, and a Director of the Zoological Park. These officers, with the exception of the Director, shall be elected at the annual meeting of the Board of Trustees, but any vacancy may be filled for an unexpired term by the Board of Trustees, or by the Executive Committee, until the next annual election.

SEC. 2. The President shall preside at all meetings of the Board and of the Society, and shall be *ex-officio* a member of the Executive and Auditing Committees.

SEC. 3. The Vice-Presidents shall, in the absence of the President, perform his duties and possess his powers, acting in the order of their election.

SEC. 4. The Treasurer shall receive, collect and hold, subject to the order of the Board of Trustees, or the Executive Committee, all dues, subscriptions, warrants from the City, fees and securities. He shall pay all bills as ordered by the Board of Trustees or the Executive Committee, and shall report to the Society at its annual meeting, and to the Board of Trustees at all regular meetings, and to the Executive Committee at each meeting. He shall keep all moneys and securities in some bank or trust company to be approved by the Board of Trustees or Executive Committee. The books of the Society shall at all times be open to the inspection of the Trustees.

SEC. 5. The Secretary, unless relieved by the Board or Executive Committee, shall attend all meetings of the Society, of the Board and of the Standing Committees. He shall keep a careful record of all proceedings, shall have the custody of the seal, archives and books, other than books of account, and shall conduct the correspondence of the Society. He shall issue all notices and tickets, and shall perform such other duties as the Board may direct. He shall be a member ex-officio of the Executive, Aquarium, and Auditing Committees, and of the Scientific Council.

SEC. 6. The Director of the Zoological Park shall be elected annually by the Executive Committee at a salary to be determined by said Committee, and shall hold office until removed or his successor chosen by said Committee. He shall be the responsible administrative officer of the Park, and shall recommend to the Executive Committee candidates for the various positions in the Park. He shall also perform all such other duties in connection with the business, scientific, and literary administration of the Society as may be assigned to him by the Executive Committee.

SEC. 7. The Director of the Aquarium shall be elected annually by the Executive Committee, and shall hold office until removed or his successor is chosen by said Committee. He shall be the responsible administrative officer of the Aquarium, and shall recommend to the Executive Committee all candidates for positions in the Aquarium. The director of the Aquarium shall be *ex-officio* a member and Chairman of the Aquarium Committee. He shall perform such other duties in connection with the Aquarium as may be assigned to him by the Executive Committee.

ARTICLE IV.

COMMITTEES

SEC. 1. There shall be three standing committees, the Executive Committee, the Finance Committee and the Auditing Committee, which shall hold office for one year or until their successors are elected.

SEC. 2. The Executive Committee shall consist of eight Trustees, together with the President, Secretary and Treasurer of the Society ex-officio. Four members including the Chairman shall constitute a quorum, and all meetings shall be called by the Chairman. The Executive Committee shall fill all vacancies in its own number and shall have the full power of the Board of Trustees, except so far as such delegation of power may be contrary to law.

SEC. 3. The Executive Committee shall have the control and regulation of the collections, library and all other property of the Society, and shall have the power to purchase, sell and exchange specimens and books.

The Executive Committee shall also have power to employ and control all officials and employees of the Society, Park and Aquarium, to authorize the payment of a salary to the Chairman of the Executive Committee, the Secretary and other officials in its discretion, to fix the amount of all salaries, and generally to carry out in detail the directions of the Board of Trustees and the terms of any contract between the City, or Park Board, and the Society.

SEC. 4. All the rules and regulations for the examination of applicants for the various positions in the Park and Aquarium shall be made or approved by the Executive Committee.

SEC. 5. The Executive Committee may regulate the auditing and payment for all current accounts.

SEC. 6. The Executive Committee shall annually appoint an Aquarium Committee, whose duties and powers are set forth in Section 11 of Article IV of these By-Laws.

SEC. 7. The Executive Committee shall annually appoint a Nominating Committee, whose duties and powers are set forth in Sections 6 and 7, Article II, of these By-Laws.

SEC. 8. It shall also appoint a Scientific Council, whose powers and duties are set forth in Section 2 of Article V of these By-Laws.

SEC. 9. The Executive Committee shall make a written report at each regular meeting of the Board of Trustees.

SEC. 10. The Auditing Committee shall consist of three regular members of the Society, in addition to the President and Secretary, members *ex-officio,*

and vacancies shall be filled by the Executive Committee. It shall be the duty of the Auditing Committee to audit, annually, the accounts of the Treasurer, of the Director of the Zoological Park, and of the Director of the Aquarium, and any other accounts of the Society, and to report to the Board of Trustees at its annual meeting.

SEC. 11. The Executive Committee shall annually appoint an Aquarium Committee, not to exceed eight members of the Society, who shall hold office until their successors are chosen. All vacancies shall be filled by the Executive Committee. The Director of the Aquarium shall be *ex-officio* a member and the Chairman of the Aquarium Committee, and such Committee may vest in him any or all of its powers. The Chairman of the Executive Committee and the Secretary of the Society shall also be *ex-officio* members of the Aquarium Committee. Three members shall constitute a quorum. The Executive Committee may delegate to the Aquarium Committee such powers as it may deem proper.

SEC. 12. The Finance Committee shall consist of three or more Trustees with the Treasurer of the Society Ex-Officio who shall act as Chairman. The Finance Committee shall have authority in its discretion to sell bonds, stocks, and other securities belonging to the Society and to invest and reinvest the proceeds, together with any other funds of the Society available for investment, in such securities as it may deem wise and shall advise the Board of Trustees as to changes that it deems advisable in securities already owned by the Society. Notwithstanding the power hereby conferred the Executive Committee may at any time direct the sale of any securities held by the Society or direct the Treasurer to invest available funds of the Society in such securities as it may select. The Finance Committee shall report from time to time to the Executive Committee all securities purchased or sold. The report of the Treasurer as to the investment of the funds of the Society shall be sufficient authority to the Chairman of the Executive Committee for approving drafts upon the bank account of the Society to pay for the same.

All bonds, stocks, and other securities shall be deposited for safe-keeping in a Trust Company approved by the Executive Committee to be held for the account of the Society and subject to the joint written order of the President and the Treasurer or of any other two officers authorized by the Executive Committee. All transfers and assignments of the securities registered or standing in the name of the Society shall be executed under its seal by the President or Vice-President together with the Secretary or Treasurer of the Society.

ARTICLE V.

SCIENTIFIC COUNCIL

SEC. 1. The Executive Committee shall annually appoint a Scientific Council of not more than ten members, and shall fill all vacancies. Members of the Council shall hold office until their successors are appointed.

SEC. 2. The duties of the Council shall be to act as an advisory board in all matters pertaining to the scientific administration of the Society, and especially as to the scientific features of the Park, the promotion of zoology by publications and otherwise, and the preservation of the native fauna of America.

SEC. 3. Four members, including the Chairman, shall constitute a quorum. The Chairman shall be elected annually by the Council. The Chairman of the Executive Committee and the Secretary of the Society shall be members *ex-officio* of the Council.

ARTICLE VI.

MEMBERS

SEC. 1. The present members and such others as shall become associated with them, under the conditions prescribed by the By-Laws, shall be members of this Society as long as they shall comply with the By-Laws.

SEC. 2. Members failing to comply with these By-Laws, or for other good and sufficient cause, may be expelled from the Society by the Executive Committee.

SEC. 3. Candidates for membership shall be proposed and seconded by members of the Society. The name, occupation, and place of residence of every member as proposed shall be submitted for election to the Board of Trustees or the Executive Committee, and such person, when elected, shall become a member upon payment of the annual dues, or of the fees as prescribed below.

SEC. 4. There shall be a class known as Fellows, which shall consist of members of the Society who have rendered marked services to science, and shall be chosen by the Executive Committee. The privileges of Fellows shall be in all respects the same as those of regular members of the Society, but they shall be exempt from the payment of annual dues.

SEC. 5. The annual dues shall be ten dollars, payable in advance, on the first day of May of each year, but the Executive Committee may remit the dues for the current year in the case of members elected between January 1st and May 1st of each year. The classes of membership shall be as follows:

SEC. 6. The payment of $200 at one time shall constitute any member a Life Member.

A member who has paid annual dues for a period of five years may thereafter, at any time, upon the payment of the difference between the amount of dues already paid and $200, become a Life Member, but such payment shall be not less than $100.

SEC. 7. The payment of $1,000 at one time, or in the case of a Life Member, of $800, shall constitute any member a Patron.

SEC. 8. The payment of $2,500 at one time, or in the case of a Patron of $1,500, or of a Life Member of $2,300, shall constitute any member an Associate Founder.

SEC. 9. Any member who shall donate to the Society $5,000, or property of equal value, or any Associate Founder who shall donate $2,500, or any Patron who shall donate $4,000, may be elected by the Board of Trustees or Executive Committee a Founder.

SEC. 10. Any member who shall have donated to the Society ten thousand dollars ($10,000), or its equivalent, may be elected by the Board of Trustees or the Executive Committee a Founder in Perpetuity. Such Founder in Perpetuity shall have the power to designate by a last will and testament his successor, who shall thereupon be entitled to all the rights and privileges of the original Founder in Perpetuity, including the right of designating in turn his successor.

SEC. 11. Any member who shall have donated to the Society $25,000, or its equivalent, may be elected by the Board of Trustees, or the Executive Committee, a Benefactor. Benefactors shall have the rights and privileges of a Founder in Perpetuity.

SEC. 12. Persons who have rendered marked service in the science of zoology or natural history may be elected Honorary Members, but not more than three such Honorary Members shall be elected in any one calendar year.

SEC. 13. A resident member who shall have rendered marked scientific or professional services to the Society in any branch of its work may be elected by the Executive Committee a Life Member, Patron, Associate Founder, or Founder. A resident of New York who shall have rendered marked service in zoology or natural history may be elected by the Executive Committee a Permanent Fellow.

SEC. 14. Non-residents who communicate valuable information to the Society, or who have rendered marked service in the science of zoology or natural history, may be elected Corresponding Members.

SEC. 15. Benefactors, Founders in Perpetuity, Founders, Associate Founders, Patrons, Life Members, Honorary Members, Permanent Fellows, Fellows, and Corresponding Members shall be exempt from annual dues.

ARTICLE VII.

PRIVILEGES OF MEMBERS

SEC. 1. A member's ticket admits the member and his immediate family to the Park on reserve days, and to all lectures and special exhibitions, and may be used by the member's immediate family, and shall be good for the current year.

SEC. 2. Admission tickets to the Park and Aquarium on reserve days are issued to members for distribution, and are good for the current year.

SEC. 3. Each member of the Society is entitled annually to a member's ticket and to ten admission tickets.

SEC. 4. Each member shall also receive one copy of the catalogue or handbook, the report and official publication of the Society, and shall have all the privileges of the Library and Members' Building.

SEC. 5. No member shall be entitled to the privileges enumerated in this Article unless his annual dues shall have been paid.

SEC. 6. The Life Members shall have all the privileges of members and ten additional admission tickets.

SEC. 7. Benefactors, Founders in Perpetuity, Founders, Associate Founders and Patrons shall have all the privileges of Life Members, and shall in addition receive copies of all scientific works published by the Society.

SEC. 8. Any member who shall fail to pay his annual dues within three months after the same shall have become due, and after notice of thirty days, by mail, shall cease to be a member of the Society; subject, however, to reinstatement by the Board of Trustees or Executive Committee for good cause shown.

SEC. 9. Any person elected to membership who shall fail to qualify within three months after notice of his election shall be considered to have declined his election; but such term may be extended by the Board of Trustees, or Executive Committee.

ARTICLE VIII.

FINANCES

SEC. 1. The fiscal year of the corporation shall be the calendar year commencing January 1st and ending December 31st.

SEC. 2. Neither the Society nor any of its Trustees or Officers shall contract any debt which, with existing debts, shall exceed in amount the funds then

in the Treasury, except to meet expenditures for which the City is liable, and for which the Society will be reimbursed by warrants from the Comptroller's office.

ARTICLE IX.

AMENDMENTS

SEC. 1. Amendments to these By-Laws may be proposed, in writing, at any meeting of the Board of Trustees, and adopted by unanimous consent of the Trustees present, or if such proposed amendment shall fail to receive unanimous consent, the Secretary shall, with the notices of the next meeting, send a copy of it to each Trustee and state that it will be brought up for action at such meeting, when it may be passed by a majority vote.